IMPACT OF DOWNSIZING ON
PROFESSIONAL SERVICES MARKETS

INPUT

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Impact of Downsizing on Professional Services
Markets

Abstract

The *Impact of Downsizing on Professional Services Markets* is an issue report published by INPUT for the purpose of examining trends and developments in the use of downsizing. The report presents an in-depth analysis of the impact of downsizing on end users, information systems (IS) and vendors of professional services. The purpose of the report is to identify the impact of downsizing on the use of professional services and the types of benefits and problems that can result. The report also recommends steps that can be taken to improve activities involved with downsizing. Recommendations are made for users as well as vendors.

The types of organizations interviewed to obtain data for the study covered a wide range of companies including: discrete and process manufacturers, retail and wholesale distributors, hospitals, utilities, telecommunications organizations, business services firms, government offices, transportation companies, and educational organizations. INPUT interviewed a broad spectrum of organizations for this report to ensure that the findings in regard to the general impact of downsizing would be useful for many organizations and professional services vendors.

The report contains 68 pages and 37 exhibits.

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Exhibits

Exhibits (Continued)

Introduction

A
Objectives

The *Impact of Downsizing on Professional Services Markets* is one of the issue reports of the 1992 INPUT U.S. Information Services Market Analysis Program. Downsizing proves to be the major force affecting the use of information services at the current time, producing revolutionary changes in the use of these services that impact both vendor and user organizations.

The report supplies information on the use of downsizing that provides insights on the reasons for its rapidly expanding growth and analyzes the benefits, use of vendors, and problems associated with it. Recommendations are also given for professional services vendors, end-user groups and IS organizations involved with downsizing.

B
Methodology

This report benefits from the comprehensive research that has already been carried out by INPUT on downsizing. Information and data from that research has been used for the analysis in this report and in the selection of issues to explore.

The report also utilizes targeted research of a group of 30 users involved with downsizing to obtain information regarding downsizing activities, the use of vendors and the benefits and problems encountered in downsizing. This report contains interviews of a wide range of users to ensure that it addresses the general effect of downsizing on discrete and process manufacturing firms, wholesale and retail distributors, hospitals, utilities and telecommunication firms, business services and government offices.

In addition, INPUT reviewed studies of users and vendors aimed at the technology utilized in downsizing. For this report, INPUT also conducted interviews with 20 professional services and other vendors to obtain information on the initiatives being made to address downsizing, the impact of downsizing on professional services offerings and the responses of vendors to the impact of downsizing on the marketplace.

The specific issues addressed include:

• In what types of downsizing activities are end users participating?

• How are end users, central IS and vendors involved in these activities?

• What characteristics of systems activities make users classify them as downsizing?

• Who controls downsizing activities and who provides aid?

• What kind of aid is provided?

• What benefits and other factors are driving the use of downsizing?

• What kinds of needs and problems has downsizing brought about?

• What vendor products and services are being sought to meet downsizing needs?

• How do end users find out about the products and services of information services vendors and get in contact with them?

• What criteria are used to evaluate or compare vendors?

• What changes take place in the use of professional services as a result of downsizing?

• How are professional services vendors reacting to these changes?

• What is the overall impact of downsizing on the use of professional services?

• What actions should end users, IS groups and vendors consider as a result of the impact of downsizing?

C
Report Structure

This section of the report is Chapter I, Introduction. The outlined structure of the remaining chapters is as follows:

- Chapter II, Executive Overview, describes the importance of downsizing in the marketplace and provides a brief summary of conclusions and recommendations developed in the report.

- Chapter III, Downsizing Activities, reports the downsizing initiated by end users, the involvement of end users, central IS, and vendors in those activities, and the benefits and other factors driving the use of downsizing.

- Chapter IV, Use of Vendors, analyzes the needs and problems of end users that lead to the use of vendors, the vendor products and services used for downsizing, the process of contacting vendors and factors inhibiting the use of vendors.

- Chapter V, Analysis of Vendor Activities, describes the product and service initiatives of vendors, the possible reduction in the use of professional services which results from downsizing and the responses from some vendors to possible changes in the use of professional services.

- Chapter VI, Evaluation of the Impact of Downsizing, examines the impact that downsizing has on end users, central IS and vendors, and on the use of professional services.

- Chapter VII, Conclusions and Recommendations, develops conclusions on the use of downsizing from the perspective of end users, IS and vendors of professional services. This chapter also makes recommendations for each of these groups which enable them to take advantage of the significant changes brought about by downsizing.

- Included is an appendix which describes INPUT's downsizing program and includes the principal questionnaire utilized in this study.

D

Related Reports

INPUT reports which are related to the subject of this report are listed below:

- *Putting Downsizing in Perspective*
- *Systems Architectures for Downsizing*
- *Case Studies in Downsizing*
- *Impact of Downsizing on IT Vendors*
- *Data Quality and Security in Downsized Environments*
- *Methodologies for IT Downsizing*
- *Open Systems Opportunities*
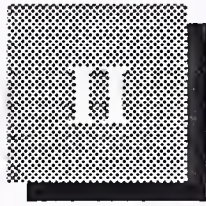
Executive Overview

A

Importance of Downsizing to Users and Vendors

The purpose of this study is to assess the impact that downsizing has on the delivery of professional services. There are questions as to whether some activities described as downsizing by users should be classified as such, but there is no question that downsizing is taking place on a large scale and business users are obtaining benefits.

- Issues of importance in the study include changes taking place in professional services work as a result of downsizing as well as the search for services and products that support downsizing.

- Also discussed are the actions that should be taken by professional services vendors, users and IS offices in relation to the needs and problems that have been encountered in downsizing activities.

- Opportunities that have been created for professional services vendors and their response to the use of downsizing are also of importance.

An assessment of the impact of downsizing made by vendors who participated in this study suggests that downsizing is not just a factor that has an impact on professional services (PS) and organizations using those services, but it is also regarded as the most important factor in the PS market, as shown in Exhibit II-1.

EXHIBIT II-1

Assessment of Downsizing by Professional Services Vendors

Assessment

Assessment	Average Ranking
Most Important Factor Affecting Professional Services Market	4.2
Means of Achieving Business Improvement or Restructuring	4.0
Force Currently Driving Many SI Projects	3.7
Result of Improving Technology	3.6

Average Ranking Given by Respondents*

*Where 5 = High, 1 = Low

- Vendors feel that downsizing is having a major impact on business and PS use as well as on SI.

- Downsizing is providing the means for business improvement and restructuring, according to these vendors.

Although some business analysts believe that current business changes would have happened in any event, the restructuring or re-engineering presently taking place in business includes steps that have been brought about by downsizing work from central IS so that it can be run and controlled by users more effectively.

- Current changes in some manufacturing functions, which permit end users to increase their effectiveness and improve quality in order entry and customer services, could not be achieved without downsizing IT capabilities to the end-user area.

- The ability to restructure business in a number of organizations has required that IS work be downsized so that workers in functional areas can monitor and process data relevant to their activities.

Downsizing is also seen as a technological fact that had to occur. As one vendor states, the increasing capabilities of IT technology in workstations, including the growth of MIPS shown in Exhibit II-2, will eventually enable workstations to run jobs that formerly had been on mainframes on a local basis.

EXHIBIT II-2

MIPS/$1,000

- PC-Client/Server
- Mini/Scalable
- Mainframe

* Includes scalable processors, e.g., NCR 3000 series.
Sources: Dataquest, Yankee, INPUT
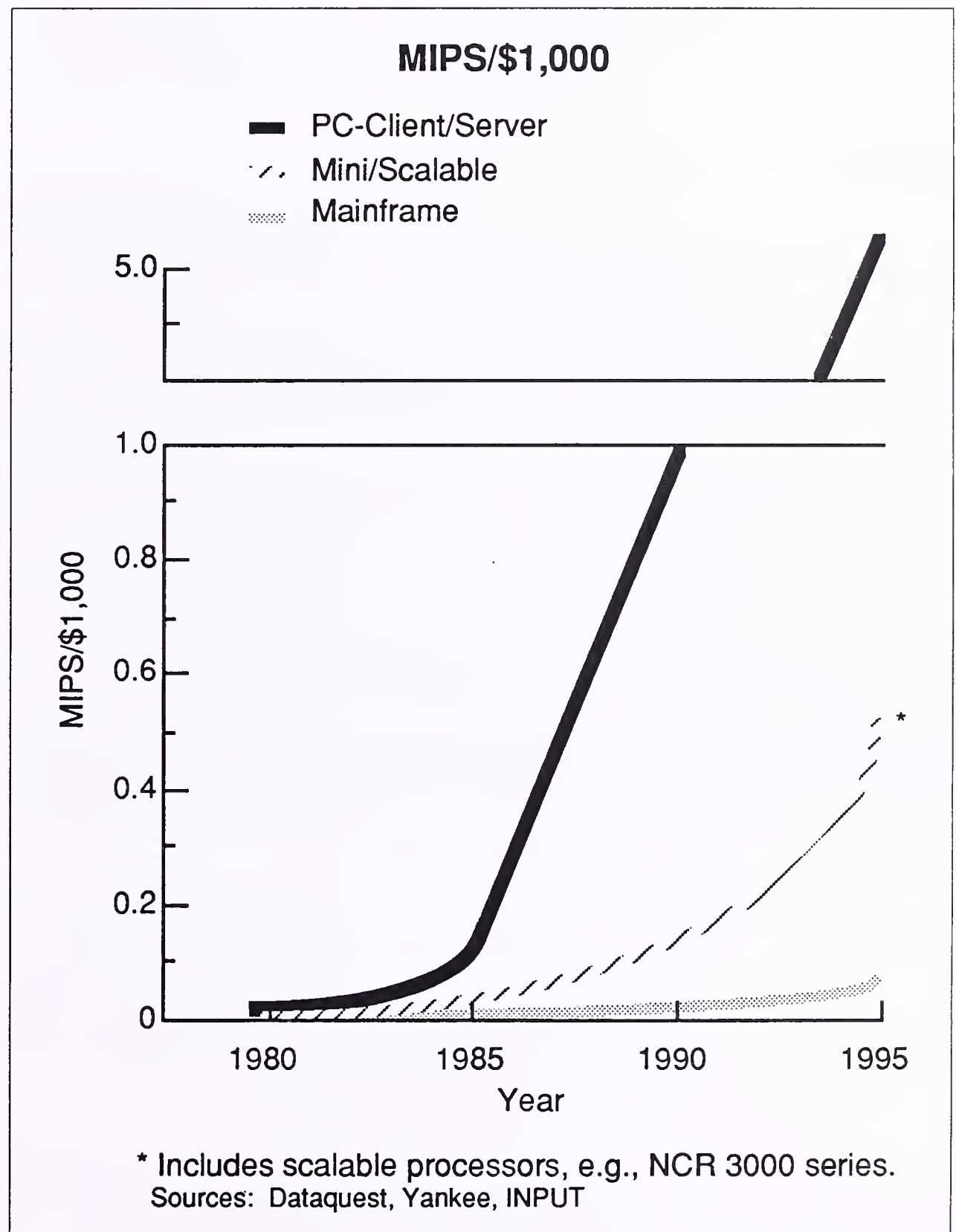
As Exhibit II-3 illustrates, the cost/performance of new technology is one of the factors driving the use of downsizing, according to user respondents.

- However, according to users the primary force is the need to change the use of IS in order to achieve business objectives. The need to improve quality and performance in business functions requires that IT capabilities be more oriented towards serving those functions.

- Another force that has to be recognized is the desire for corporate management to reduce its expenditures for central IS. Although total IT costs may be difficult or impossible to reduce in the near term, there may be future reductions in central IS costs as a result of downsizing.

EXHIBIT II-3

Forces Driving Downsizing According to Users

Force

Force	Average Ranking
User Plans to Improve Performance	4.3
Cost/Performance of New Technology	4.1
Management Desire to Reduce IS Costs	3.8

Average Ranking Given by Users*

*Where 5 = High, 1 = Low
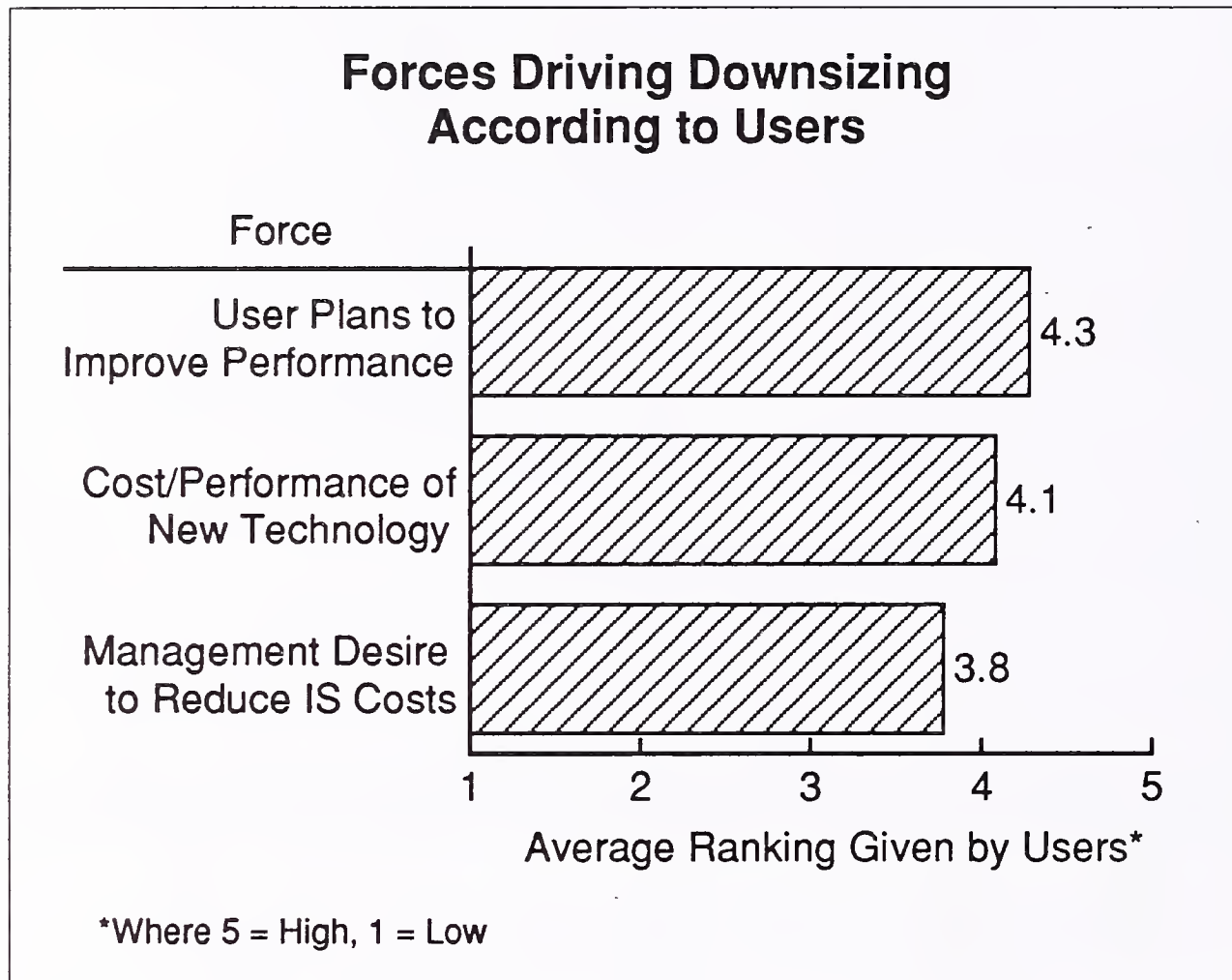
Even if total IS costs go up, there may be additional justifications developed by end users that do more than offset the costs. Where costs are not offset, there may still be more organizational effectiveness by employing IS within an organization.

B
Benefits and Problems

Improvements in customer services, operations, revenues and productivity were more important benefits than cost reduction to users. However, many end users justify their use of downsizing with cost reductions.

A high percentage of the interviewed end users reported benefits from downsizing. There was only one case in which the benefits were at issue and problems that occurred during implementation had not been resolved.

- As Exhibit II-4 indicates, problems have been encountered in cost and time estimates in order to achieve downsizing goals. More aid than anticipated has also been needed in a number of situations from experienced internal IS groups or vendors.

EXHIBIT II-4

Problems Encountered with Downsizing

Problem

Problem	Average Impact
Cost Exceeded Estimates	4.3
Difficulties in Selection and Use of Operating System, Data Base, GUI, Tools and Other Software Products	4.1
Problems in Planning or Using Network Capabilities or Client/Servers	3.9
Implementation Time Exceeded Schedules	3.9
Data Management/ Reliability Problems	3.8
Objectives Could Not be Fully Met	3.4
Problems in Setting Up User Data Center	3.2

Average Impact of
Problems to Respondents*

*Where 5 = High, 1 = Low

- In addition, problems were encountered in the selection and implementation of software and network components of downsized systems. Experienced aid is also often needed here.

- In some situations, problems arose in meeting more complex downsizing objectives, which involved problems in data management, the use of multiple software products, or external and internal IT products and services. These problems were of great significance to the companies involved and might have been avoided through the use of consulting aid to review plans.

In more complex situations, the objectives of end users were not always fully reviewed with vendors or central IS groups. In less complex activities, efforts were made to initiate downsizing activities such as the selection and use of spreadsheet or data base and report generation software products, or the installation of a workstation before defined needs had been fully reviewed.

- Where the downsizing needs closely matched those of other offices or companies in the same business that had previously downsized work, the rapid implementation of capabilities was more likely to succeed. Even in those cases, the ability to access and use mainframe or other data that was needed often had to be reviewed during implementation.

- There were also fewer problems where there was significant experience in the end-user area due to the presence of a local IS group, the transfer of central IS personnel or the development of high levels of IT expertise by end-user personnel (power users). Even in some of these cases, end users reported the need for expertise with new software and network products as well as with planning and services that could be supplied by PS vendors.

As summarized in Exhibit II-5, the need to support new types of technology and a fall-off in contract services to support mainframes are two of the specific changes that downsizing produces in the professional services business.

- There is also more use of software products and new software tools as a result of downsizing.

- Since the integration of software and other products as well as timely solutions are of interest to end users, professional services are also utilized more often as part of SI projects. In these situations, or in relation to more complex downsizing projects in general, the need for more knowledge of industry functions has come to the fore.

EXHIBIT II-5

Changes in the Use of Professional Services Identified by Vendors

Change

- Less contract service demand for mainframe software products

- Skills needed to support new workstation software products and client/server use

- More use of software products versus software development

- Support of new tools and approaches to software development

- Less demand for full development of custom application systems

- More demand for professional services in support of SI projects

- More need for knowledge of industry functions

- Need for new types of support

Downsizing has also created the need for new types of support in both PS services (such as short-term transition management) and in non-PS services (such as outsourcing of desktop services). In cases where vendors obtain contracts for short-term (less than one year) contracts for transition or application management, or even desktop support, they should consider stepping into the outsourcing business and offering longer term contracts for these services.

C

Conclusions and Recommendations

Despite the fact that use of downsizing is proceeding rapidly in business, one of the conclusions of this study, as shown in Exhibit II-6, is that aid and experience are often needed by organizations planning downsize.

EXHIBIT II-6

Conclusions and Recommendations

Conclusions

- Use of downsizing is rising rapidly

- Business benefits and technology are driving forces

- End users are more active as buyers

- Successes and problems are being encountered

- Downsizing is changing the use of IT

- Professional services use can decrease

- There are new opportunities

- Price is not always the major vendor selection criterion

Recommendations

- The impact of downsizing must be analyzed

- Skills to support downsizing must be gained

- User problems and needs should be reviewed

- End-user and IS roles must be assessed

- Proactive contact is needed

- Industry and functional knowledge will be necessary in larger contracts

- The problems that are encountered and the need for aid create many opportunities for professional services vendors. These vendors can offer contract services to help select, combine and utilize software products; plan and implement networks; train personnel; and consult on the needs involved in downsizing projects.

- PS firms can also respond to the need for more complex applications where it may be necessary to modify software products and integrate them with other components to achieve a solution. A group of SI firms responds to these opportunities more rapidly than do vendors devoted to professional services, in most cases.

SI firms have the industry and functional knowledge as well as the reputation for achieving timely solutions that are crucial to end users interested in downsizing. They also have marketing approaches to the use of downsizing and client/server systems such as the Andersen Consulting training course on client/server use, which make them attractive to end-user and corporate management.

Many professional services firms are perceived of as offering complete development of custom applications software products and contract services for mainframe projects.

- This approach is not appealing to end users interested in downsizing who want to use commercially available software products as much as possible to rapidly replace parts of or entire application systems running on mainframes.

- Consequently, as indicated in Exhibit II-6, professional services vendors may find that downsizing reduces the business available to them.

Despite the fact that there are challenges as well as opportunities for professional services firms, there are PS vendors who plan minimal or no changes in response to the use of downsizing. Other PS vendors still devote most of their attention to mainframe applications systems. They are not considering the possibility that their market may shrink.

Many professional services vendors are not responding quickly enough to the interest in downsizing that is taking place in companies with which they have contacts.

- These firms should analyze the needs for and potential problems that could arise from downsizing in present accounts and prospects. The roles of end users and IS in the acquisition of services on those accounts should also be analyzed.

- As recommended in Exhibit II-5, professional services firms should take a proactive role in speaking to end users and IS groups about downsizing so that opportunities to provide consulting, education and project activities can be identified as rapidly as possible.

- Opportunities to provide continuing services, such as a program to downsize a group of departments or support downsized applications or desktop services, can be missed by failing to take part in early discussions or planning.

Since some end users are apt to seek services from vendors with whom they discuss potential services or products, the consultative approach that was discussed above may lead to opportunity. It can also ensure that vendors are not bypassed when opportunities arise.

Central IS groups and end users should also anticipate needs for downsizing.

- Training courses in downsizing or the use of client/server technology could be helpful.

- Exploring the capabilities that vendors have in relation to downsizing could provide ideas. This should involve communicating with organizations that have implemented downsizing with vendor products and services as well as visiting vendor facilities where software products and techniques can be demonstrated.

Some professional services vendors may choose to supply only contract personnel with skills in software products that are used in downsizing. Some of these products are: Easel, Sybase, and Netware, or the product complement of Microsoft.

- These firms could market other services such as change management to support existing applications during the introduction of downsizing.

- They could also develop other delivery capabilities and offer SI or SO services, such as desktop services.

This report recommends that professional services vendors consider offering more than contract services skills to support downsizing because a limit of that type could lead to a decrease in overall PS business.

III
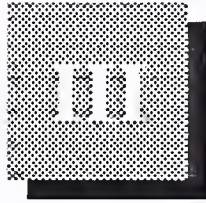
The Use of Downsizing

A

Downsizing Activities of Users

The downsizing activities reported by users are now having a rapidly increasing and noticeable impact on the use of professional and other information services.

- The efforts of scattered end users to move work from mainframes to smaller platforms (in order to improve business results) have been successful enough to stimulate many other end users to explore downsizing.

- A number of end users now have local IS capabilities or IS centers that run downsized application systems. (In addition to downsized systems, some user departments are also running the full application systems that were formerly run in central IS centers.)

- End users report that they expect the expansion in the use of downsizing to continue and to have a strong influence on their use of vendor products and services during the next five years.

Exhibit III-1 illustrates the types of activities that users classify as downsizing.

EXHIBIT III-1

Downsizing Reported

Type of Activity

Type of Activity	Value
Moving Mainframe Work to Client/Server Technology	65
Moving Mini Work to Workstations	24
Moving Mainframe Work to Standalone Workstation	18
Moving Mainframe Work to Minis	18
Other: Moving Mainframe Work to Reduced Mainframe Configurations (Rehosting)	6

0   20   40   60   80   100
Percent of Respondents

Respondents can be engaged in more than one type of activity

- Two-thirds of the respondents involved themselves with downsizing projects that were related to the movement of work from mainframes to client/server technology involving workstations and LANs.

- Some respondents were involved in moving work to standalone workstations.

End users also report that mainframe work is being moved to minicomputer and minicomputer work is being moved to workstations.

- Minicomputers may be an interim step in some circumstances.

- However, the users who were contacted also mentioned that some of their most important applications were being moved to minis. The users did not mention intention to downsize these applications further in the near future.

Exhibit III-1 also illustrates that the movement of work from mainframes to workstations generally involves workstation installations that are equipped with client/server technology.

- More than three-fourths of the previously mentioned workstation use involved this type of installation.

- Several users noted that their standalone workstations would be connected to LANs in the future.

- The work being downsized to minis did not use client/server configurations in all cases.

End users tend to associate downsizing with the movement of work to user control as well as to smaller equipment platforms, as Exhibit III-2 illustrates.

EXHIBIT III-2

Characteristics of Downsized Work

Characteristics

Characteristic	Average Importance to Respondents*
Moving Central IS Work to Smaller Equipment Platforms	4.3
Moving Work from IS Control to User Control	4.3
Moving Work from IS Centers to User Area Equipment Sites	3.8
More Rapid Implementation	3.6
Moving Work to Client/Server Systems	3.2

Average Importance to Respondents*

*Where 5 = High, 1 = Low

MAIR3 III-3
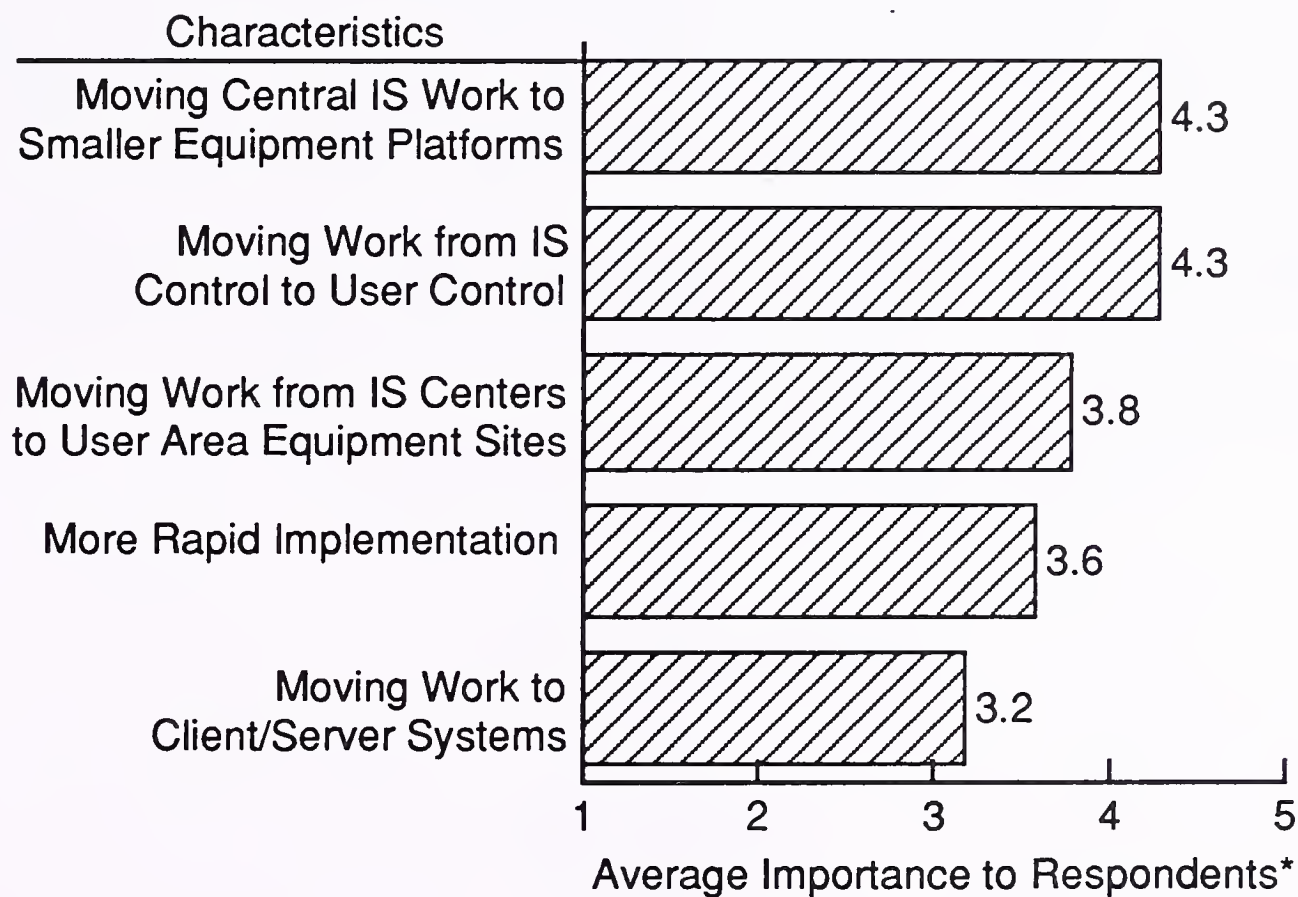
- Some users report, however, that they have downsized work to facilities that were not under their control or were under the joint control of IS and users.

- Most end users tended to think of downsizing as moving computing work from central IS centers to installations in areas that are under their control.

- End users also associate downsizing with the rapid implementation of systems to meet their needs.

A number of end users noted that downsizing can lead to additional applications and the growth of local IS capabilities. Several end users also noted that their downsized capabilities led to the use of new technology, including optical storage for imaging.

B
Involvement of Users, Central IS and Vendors

Since technical problems can be confronted in downsizing—including questions about the use of LANs and client/server capabilities, data distribution, using operating systems and other software products and running equipment—an internal IS office has often been involved with the responsibility for downsizing projects, as shown in Exhibit III-3.

EXHIBIT III-3

Responsibility for Downsizing Projects

Responsibility

IS Department — 45

IS and User — 29

User — 23

Vendor — 3

Percentage of Respondents (0, 20, 40, 60, 80, 100)
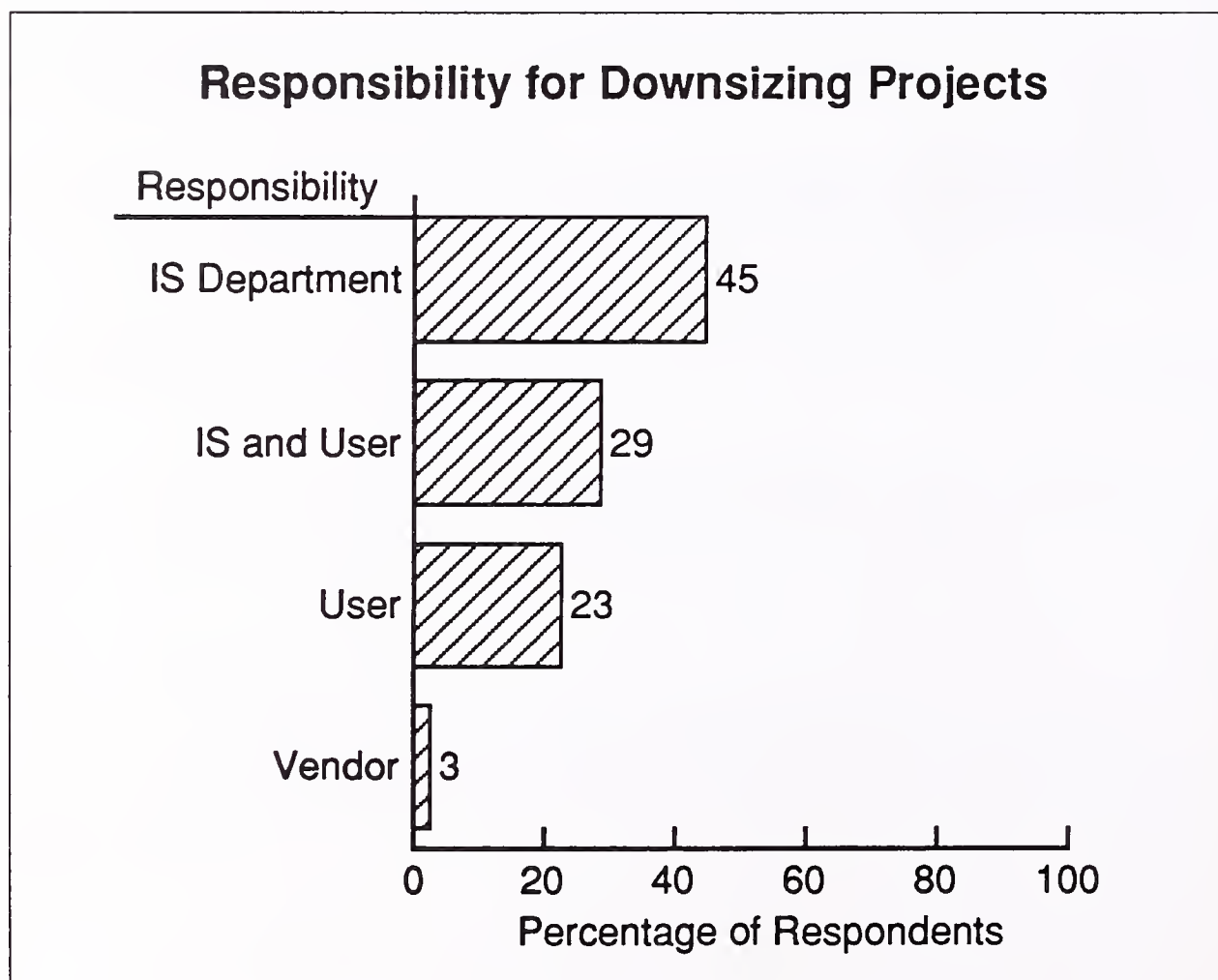
- IS has the chief responsibility in less than half of the activities reported.

- However, end users are responsible for the entire activity in about 23% of the cases and share the responsibility with IS in about 29% of the remainder. Where responsibility is shared, end users feel that the responsibility passes into their hands in most circumstances.

Downsizing will lead to a greater role for users and vendors must be sensitive to the change that is taking place.

In situations in which end users are responsible for downsizing activities, an IS group and data center are often present in the end-user department.

When the responsibility for downsizing involves a central IS group, there is often a favored set of hardware and software products used for downsizing.

- One major bank has guidelines that direct its departments or IS groups to utilize Sun workstations and UNIX for downsized applications.

- A major energy company, however, has let downsized application systems be developed on different makes of workstations in DOS, OS/2 and UNIX. This was done in order to compare the relative level of effectiveness and problems that were associated with each selection. The central IS group has also avoided clashes with departmental groups as a result of this plan.

Although vendors are not often given the final responsibility for downsizing, as shown in Exhibit III-3, end users do seek aid for downsizing from vendors as well as from IS departments.

- End users seek aid from vendors, from a central IS group, or a combination of vendors and IS, as shown in Exhibit III-4.

EXHIBIT III-4

Source of Aid to Initiate Downsizing

Source

IS department and Vendor	41
IS Department	29
Vendor	24
IS Department and Knowledgeable User Personnel	6

0   20   40   60   80   100

Percentage of Respondents
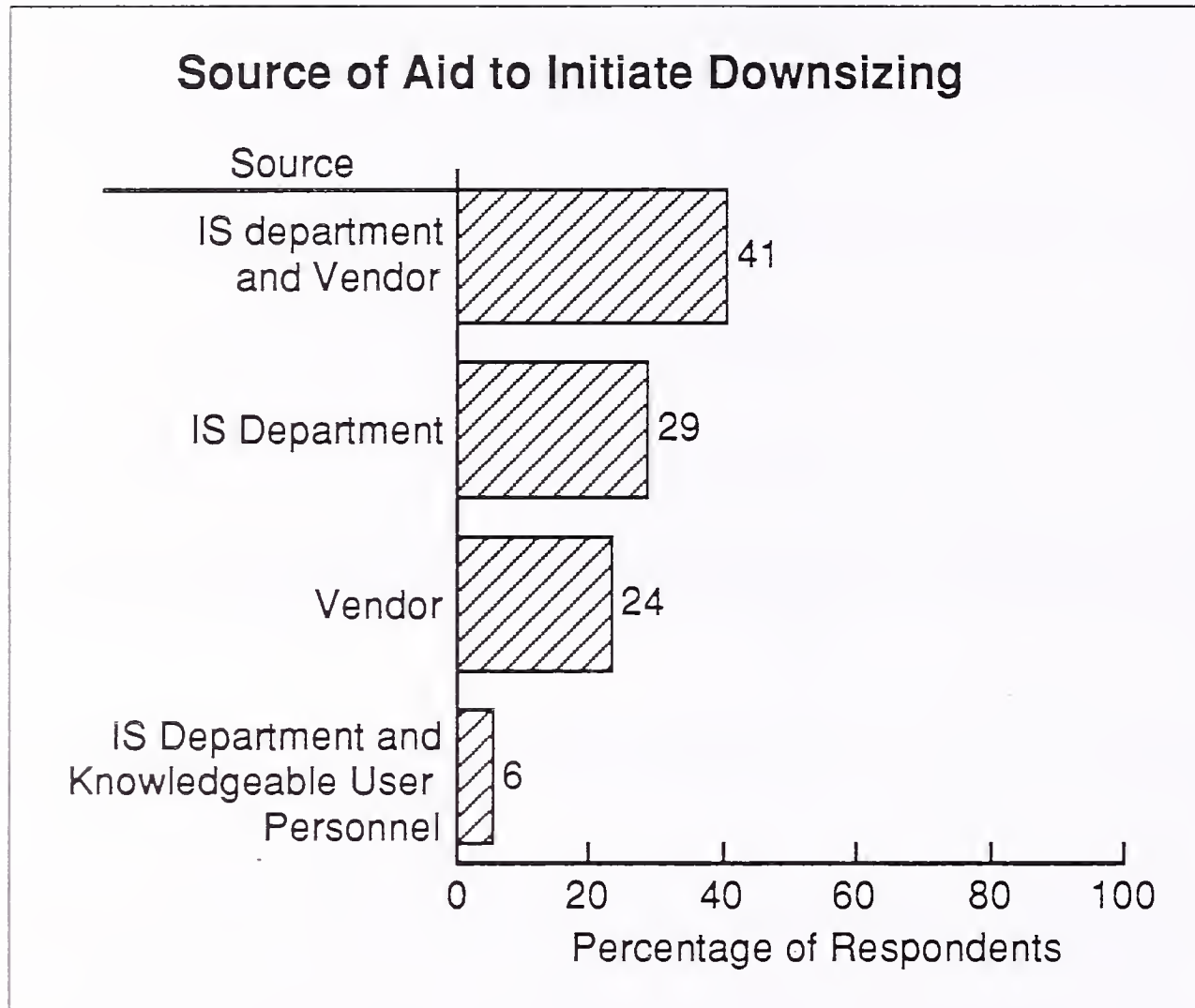
Some users report that they seek aid from vendors directly because they want to consider downsizing alternatives without being influenced by central IS plans.

A CIO at a major brokerage reported that a number of users have sought aid in downsizing work from professional services vendors without involving the IS department, although it would be necessary to bring in the IS department in order to have the vendor do the jobs that were being discussed.

- These situations can lead to negotiation ("going eyeball to eyeball" in the words of the CIO).

- These situations can also result in joint aid to the end user from IS and a vendor (even if the parties have a hostile relationship), as noted in Exhibit III-4.

C

Aid in Implementing Downsizing

End users have been seeking aid in the use of software and network products more than in planning in order to implement downsizing, as indicated in Exhibit III-5. The selection and customization of software products is the assistance most commonly sought.

- Vendors who can customize workstation applications software products, such as the human resources product of PeopleSoft or the accounting product of Macola, are in high demand. One of the professional services vendors interviewed supplies personnel with training in the Peoplesoft product. Another customizes the Macola product to meet the needs of departments for distribution firms.

- Several vendors report that they provide aid in setting up data bases or spreadsheets to implement downsized systems. Vendors, who supplied professional services to aid users in this way, mentioned the use of specific software products that they supported such as: Paradox, RBase, Foxpro and Objectvision to meet client needs. Others reported writing Clipper or FoxPro (4GL) programs to work with Xbase applications.

The activities mentioned above indicate that professional services vendors are responding to the needs of downsizing. These needs are often related to the use of software products. End users also report that they have obtained and implemented software products to meet their needs with the aid of local staffs or a "power" user. This type of user has the aptitude and interests to gain facility with the products now in use on workstations.

In addition to the ad hoc steps mentioned above, vendors and IS departments also report that they assist users by consulting or discussing their needs. They recommend products in relation to their needs and supply training about the products, as indicated in Exhibit III-5.

- Products mentioned by end users in this regard include: applications software products, data bases, languages to access and manipulate data, network software products, graphical user interfaces (GUI), and operating systems for downsized installations.

- The IS departments and/or vendors may then lay out a plan to develop additional custom software products and help with implementation and training for end users. This approach may lead to SI work.

- Vendors, like Andersen Consulting, use planning and training activities as means of gaining larger roles in the use of downsizing among their clients.

EXHIBIT III-5

Type of Aid Sought

Type of Aid

Selection and/or Customization of Software Products	47
Network-Related Planning/Implementation	35
Business Planning	18
Education and Training	18

0   20   40   60   80   100
Percentage of Respondents

(More than one type of aid was sought by some respondents)
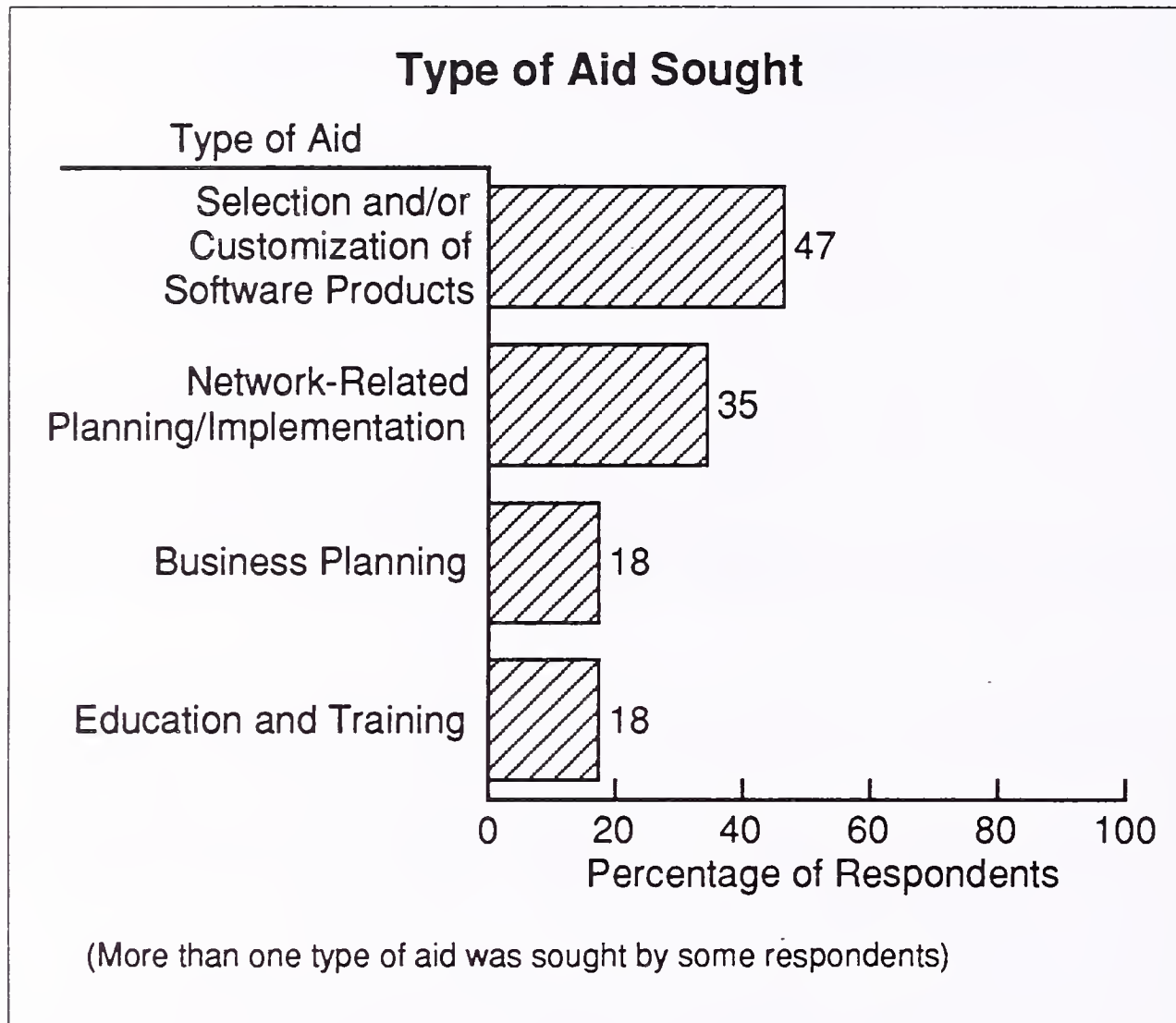
There are also firms specializing in training that are attempting to respond to the interest in downsizing. They include ExecuTrain, Comsell and Learning Tree.

The criteria influencing the first use of vendors or of IS to provide aid are shown in Exhibit III-6.

• If several vendors seek bids, or there is a question of using a vendor or a central IS group, almost equal importance is given to knowledge of the skills required and the price or cost involved (that could be allocated by IS). When more complex work is involved, the importance given to other factors such as industry and functional knowledge increases.

• If a vendor has sufficient knowledge of client/server systems or software products being used, and the price is low enough, an end user may go ahead without analysis of other alternatives.

EXHIBIT III-6

Factors Influencing Initial Use of Vendors or IS

Factor

Price or Cost to Department	4.3
Knowledge of Skills Needed	4.2
Experience with Downsizing	3.6
Other	3.2

1   2   3   4   5

Average Importance to Respondents*

*Where 5 = High, 1 = Low
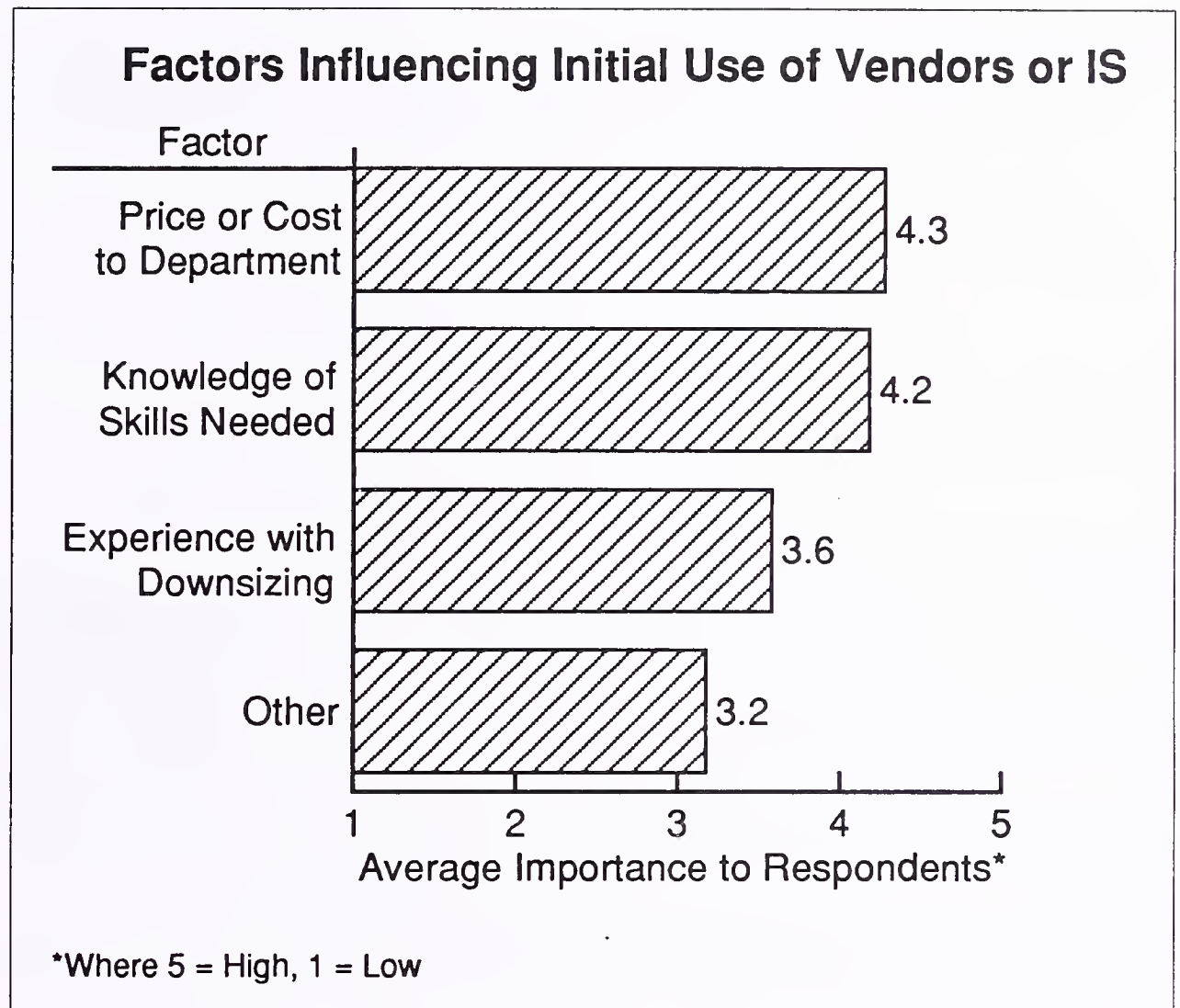
D

Factors Driving the Growth of Downsizing

The force which users identify as the major factor driving downsizing is the demand for end users to take over and reshape the automated systems used by their departments. This is done in order to help improve their business performance, as indicated in Exhibit III-7.

- End users want to be empowered in order to improve quality or productivity or address problems themselves.

- The cost/performance ratio of new technology and the desire of top management to reduce IS costs are also forces driving downsizing.

- Although management may realize that end users need downsized systems located in their areas to achieve business goals, it tends to expect downsizing to also produce reductions in costs, particularly IS costs, according to respondents.

Forces Driving Downsizing According to User Respondents

Force

Force	Average Importance*
User Plans to Improve Performance	4.3
Cost/Performance of New Technology	4.1
Management Desire to Reduce IS Costs	3.8

1 2 3 4 5

Average Importance*

*Where 5 = High, 1 = Low
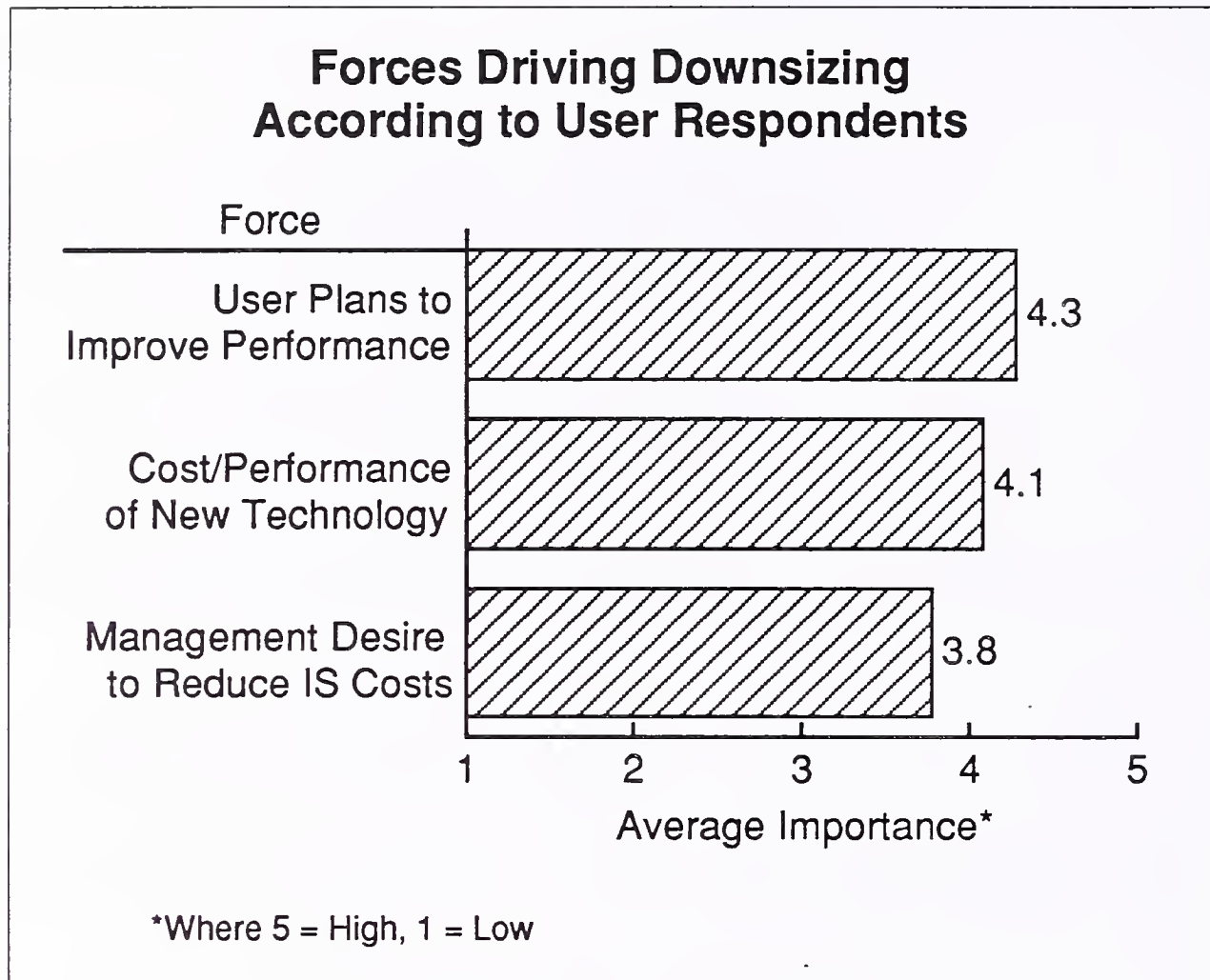
The harsh reality is that total IT costs will increase in most cases during the introduction of downsizing.

- However, a number of end users pointed out that they could achieve sufficient benefits to offset incremental IT costs.

- Others promote the business benefits of downsizing sufficiently to succeed in proceeding with their plans.

Users also pointed out that downsizing results in more simplified and effective means of doing business in most cases; thus, the ultimate effect of downsizing will result in improvements and savings for organizations.

- The specific benefits which users expect to obtain from downsizing are not chiefly focused on savings, as illustrated in Exhibit III-8. Reduced business and IS costs and improved productivity are ranked below the improvement of quality and service as benefits.

- The improvement of business functions is rated higher because users feel that this will lead to substantial savings in many cases.

- For example, users in manufacturing report that they can improve quality and service by having downsized systems in their areas that can communicate with quality control and research and development offices.

- Distribution offices in several industries also report that downsized systems were justified by improved service to customers and increased revenues rather than savings in IS and business costs.

EXHIBIT III-8

Benefits of Downsizing

Benefit	Value
Improved Customer Service Revenues	4.1
Improved Operations and Administration	3.8
Improved Effectiveness or Productivity of User Offices	3.4
Reduced Business or IS Costs	3.2
Upgrading Systems Through the Use of New Technology (AI, Image, Network)	2.8

Average Importance of
Issues to Respondents*

*Where 5 = High, 1 = Low
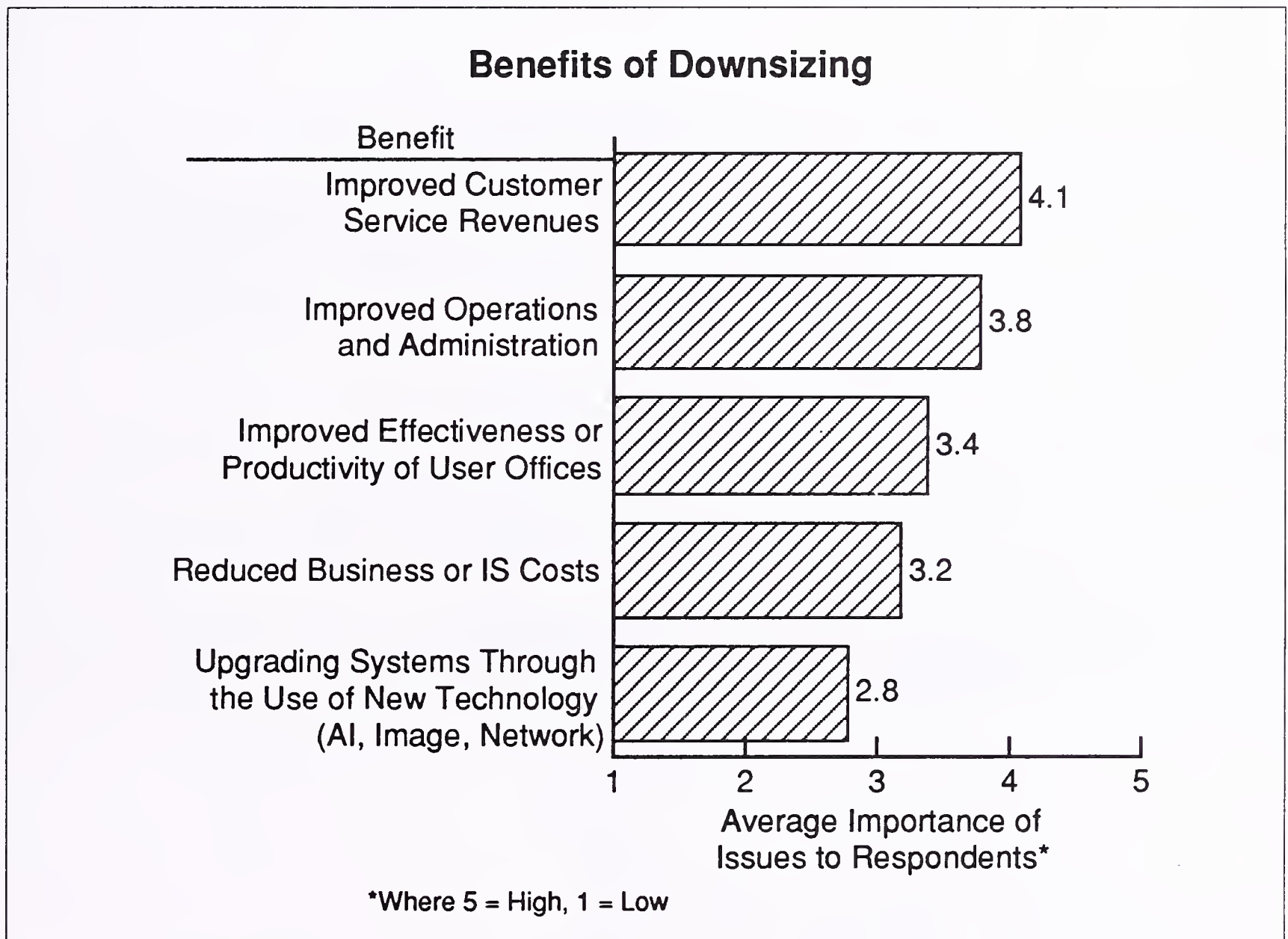
However, some large companies reported that they expect new client/ server technology and downsizing to lead to long-term savings in IT costs.

- Advertisements and articles on downsizing have emphasized the savings that new technology achieves.

- It can be difficult for IS staffs to argue that the use of downsizing will not result in eventual savings.

Several CIOs interviewed during this study mentioned that they did not want to overlook—nor let a vendor brought in by a user discover—good opportunities for downsizing that would result in notable benefits or savings that they could have uncovered. One of these CIOs admitted that he had looked for aid from a professional services firm to help him identify opportunities for downsizing, as well as to establish IS as a knowledgeable and helpful party regarding downsizing.

The interest in the use of downsizing and the benefits associated with it have been reported for a number of functional areas, as shown in Exhibit III-9.

- Downsizing has been reported for finance/accounting, administration, human resources and operations/production functions.

- The area in which the greatest percentage of the respondents to this study have reported downsizing use is in customer service and ordering, including services supporting customer activities. This area is one where benefits in terms of increased revenue or customer satisfaction are most visible.

EXHIBIT III-9

Downsizing versus Types of Applications

Type of Application

Type of Application	Percent of Respondents
Customer Service, Ordering, Product Information, Communications	41
Finance, Accounting, Administration	29
Operations or Manufacturing	24
Other	6

Percent of Respondents (0 20 40 60 80 100)
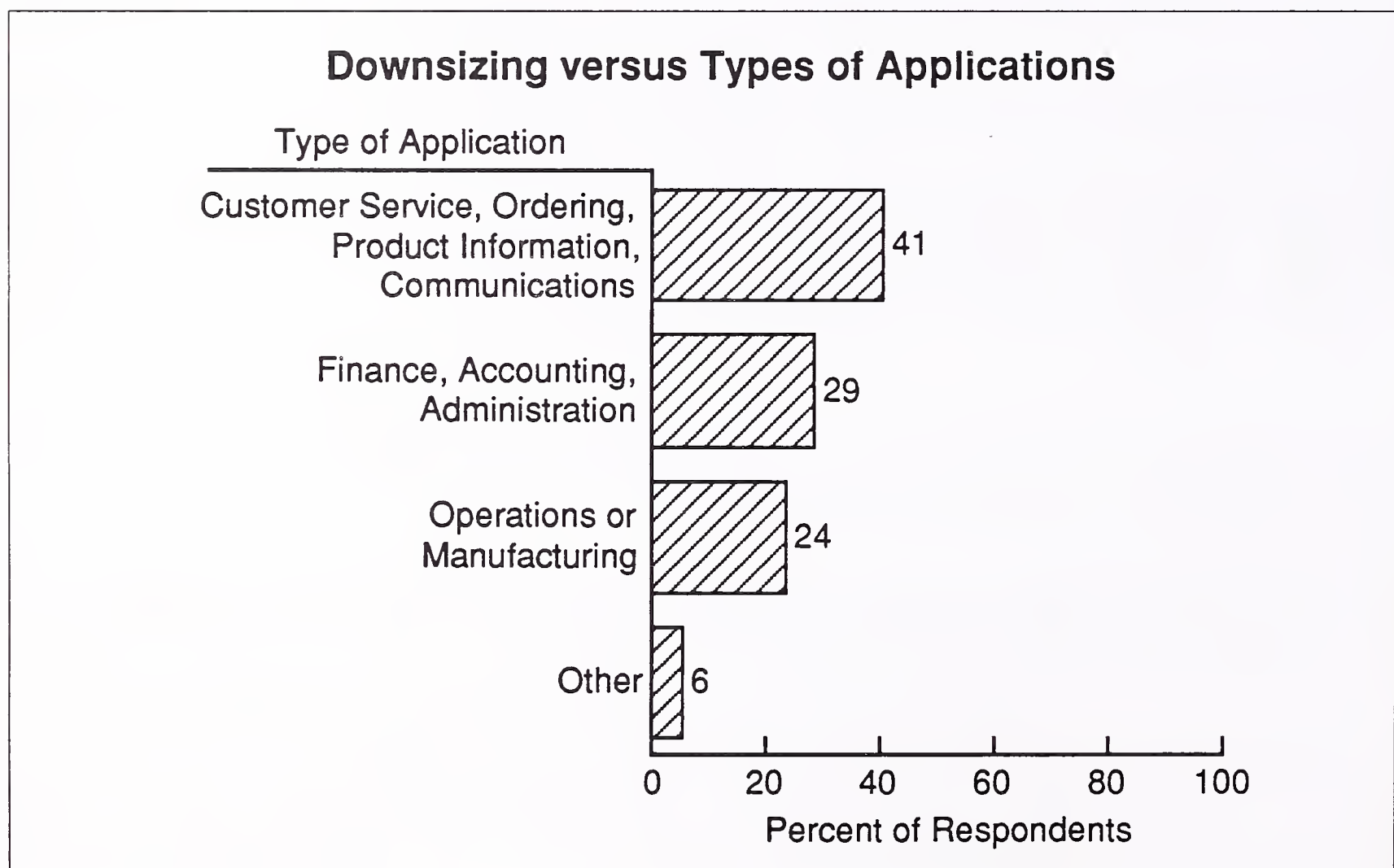
E
Growth of Downsizing

End users are enthusiastic about the use of downsizing. Exhibit III-10 reflects the growth that end users foresee in the use of IS in their areas and elsewhere.

- Over three-fourths of respondents expect rapid growth of downsizing use.

- Growth in the local use of IS is also expected as a result of downsizing.

This growth in the use of downsizing will lead to an increasing demand for the services that will aid with the use of software products and networks. Professional services could benefit from this growth.

EXHIBIT III-10

Growth in Downsizing and Local IS

Assessment	Percentage of Respondents
Rapid Growth in Downsizing	47
Rapid Growth in Downsizing and Local IS	29
Moderate Growth in Downsizing and Local IS	12
Limited Growth in Local IS	6
Uncertain	6

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IV
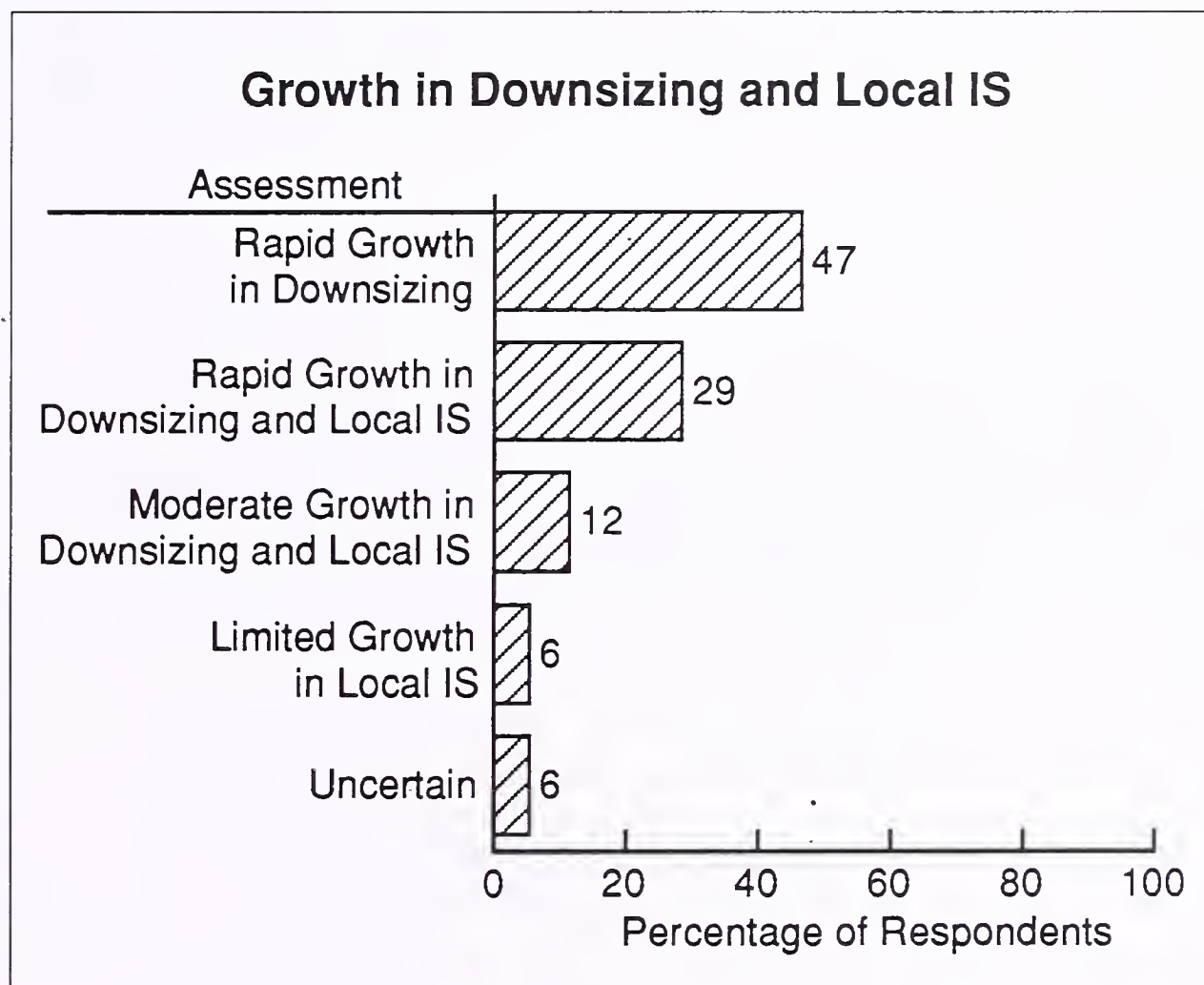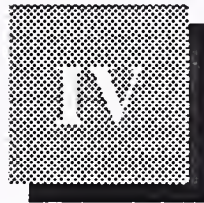
Use of Vendors

A

Problems and Needs Encountered by Users

The results of downsizing activities reported by end users in Exhibit IV-1 indicate that problems and needs were encountered along with the goals being sought.

EXHIBIT IV-1

Impact of Downsizing on End Users

Factor

Factor	Percent
Improved Business Performance or Achievement of Goals	94
Need for Aid with Problems or Technology	71
Need to Have More Control of IS Activity	59
Need for More User Area IS Capabilities (including personnel)	47
Pressure on User Budgets	35

Percent of Users Reporting Factor

Multiple responses possible
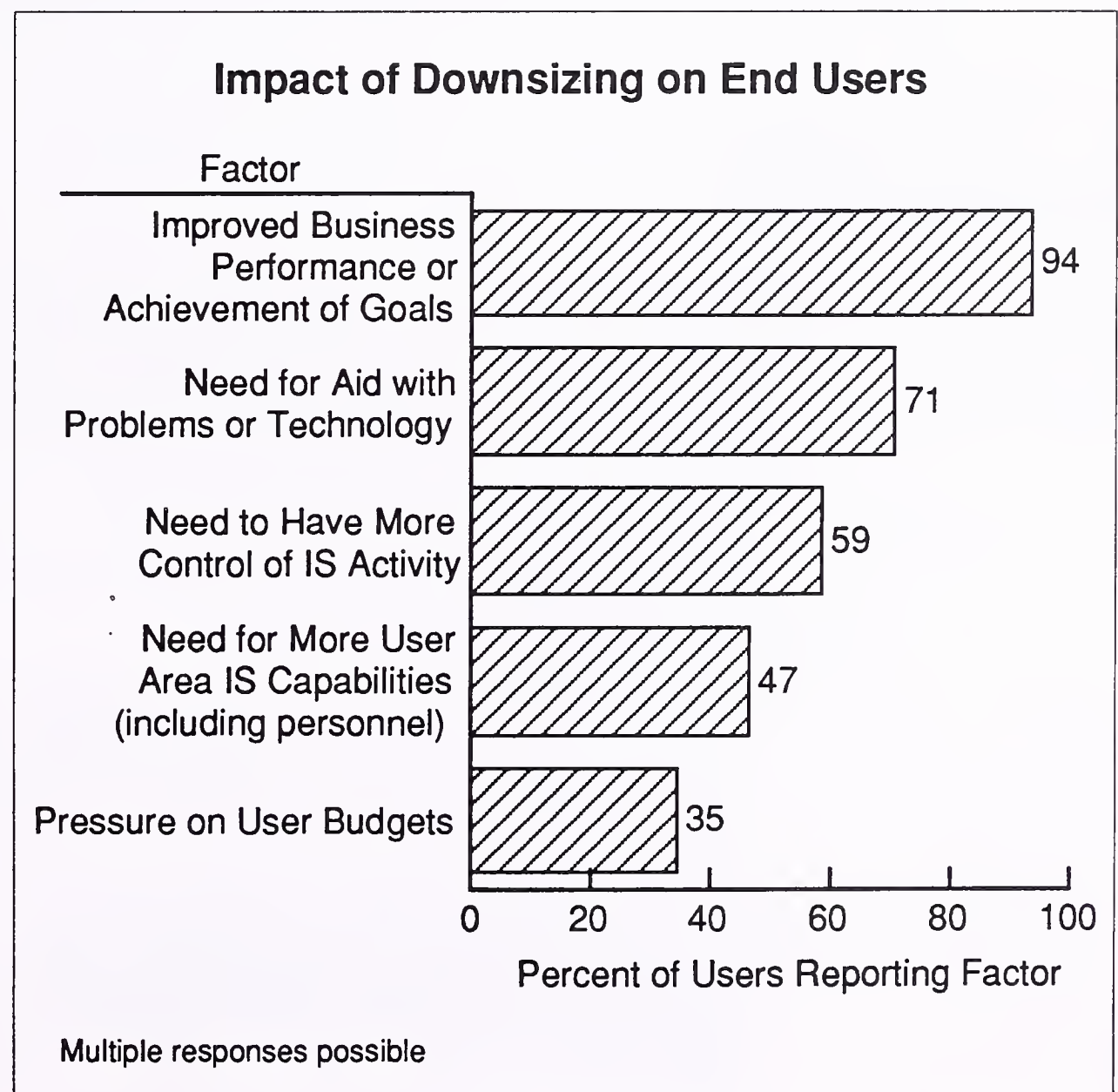
- Although a major share of end users stated that downsizing had improved business performance, or helped to achieve business goals, most reported that they were aware of new needs and encountered problems in the course of downsizing activities.

- The experience with downsizing activities led a number of end users to feel a need for more IT equipment and personnel capabilities.

- In addition, many end users indicated that they felt more need to take charge of IS work for their departments. Downsizing activities generate interest in initiating more of these activities.

- About one-third of users felt the pressures from internal budgets which were a result of the need for assistance in evaluating and selecting products and services, as well as managing downsizing projects.

The number of products that were reviewed often proved to be larger than most end users anticipated. Several end users mentioned over 15 data bases, GUIs, tools, access methods, network and other software products that had been brought to their attention. The review and selection of products to use was one of the factors that led to the use of vendors.

B

Involvement with Vendors

Vendors are often involved in the support of downsizing, as previously indicated in Exhibit III-5. They may be contacted to provide the assistance mentioned above or to provide training, products and services to accomplish a downsizing objective. Vendors can also be contacted to help address problems that occur, such as those listed in Exhibit IV-2.

- Some end users feel that they should not have encountered the problems that this exhibit reports because they had arranged for aid or used products recommended by IS or vendors.

- End users might not have been able to compare the activity that they initiated, or the skills that they needed, against the prior experience of the internal group or vendor that was going to provide them aid. They might also have obtained products with which the support group was not familiar.

- Several major vendors report that they have been called upon in a number of instances to help users recover from problems that had been encountered in downsizing projects. A number of these were in circumstances where an IS group was already trying to provide aid to the end user.

EXHIBIT IV-2

Problems Encountered with Downsizing

Problem

Problem	Value
Cost Exceeded Estimates	4.3
Difficulties in Selection and Use of Operating System, Data Base, GUI, Tools and Other Software Products	4.1
Problems in Planning or Using Network Capabilities or Client/Servers	3.9
Implementation Time Exceeded Schedules	3.9
Data Management/ Reliability Problems	3.8
Objectives Could Not be Fully Met	3.4
Problems in Setting Up User Data Center	3.2

Average Impact of
Problems to Respondents*

*Where 5 = High, 1 = Low

In addition to the problems in selecting and using software products just discussed, Exhibit IV-2 also indicates that problems were encountered in time and cost estimates, data management or reliability, and the plans for and installation of end-user data centers. In a few cases, problems were also encountered in meeting downsizing objectives.

Some of the problems encountered may have resulted from the way in which downsizing was investigated and initiated. According to end users, information on downsizing and on vendors who had experience with it was found through the sources listed in Exhibit IV-3.

EXHIBIT IV-3

How Users Learn of Vendor Capabilities

Means

Means	Relative Importance*
Contact with Colleague Within or Outside Company	4.1
Past Relationship with Vendor	3.6
Reputation of Vendor	3.5
Article in Periodical	3.2
Sales Contact with Vendor	3.2
Advertising	2.4

Relative Importance*

*Where 5 = High, 1 = Low
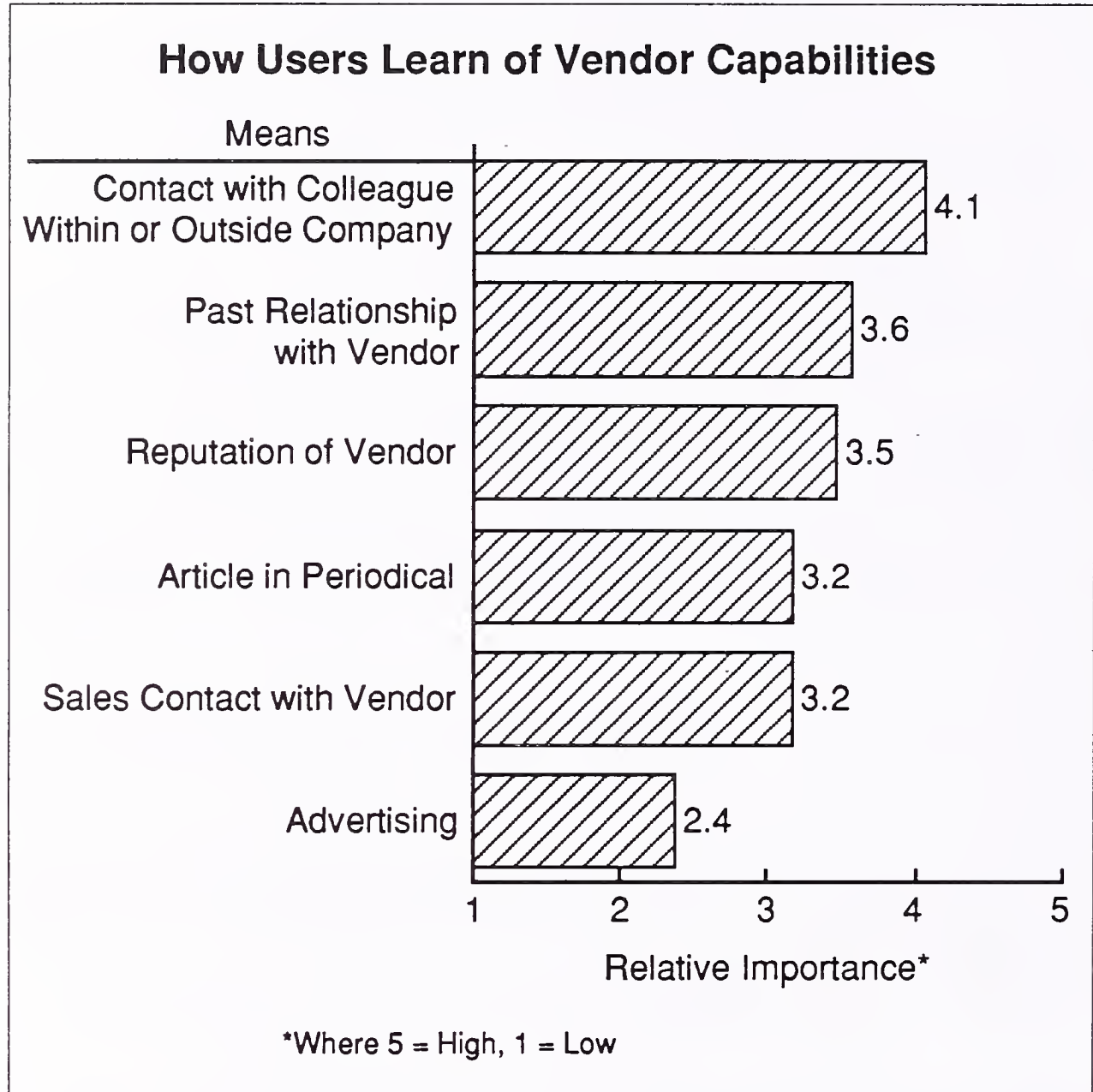
- Advertisements, reputation, or sales calls are not as important to end users as information obtained from contacts with colleagues. That is principally due to the fact that end users are prone to seek advice from people with similar or related functional responsibilities.

- This indicates that vendors would be wise to gain industry and functional knowledge to use in selling products and services for downsizing.

Some end users also noted that IS departments or vendors may not analyze user needs sufficiently, or may have ideas for projects that are too complex or large-scale for the business needs users want to accomplish.

- Many end users may have ideas on how to improve business through downsizing, but they are reluctant to review these ideas with their IS departments or vendors because they fear that the review may expand or impede solutions.

- Rapport needs to be developed with end users to recognize when their needs can be met with a simple approach, such as the use of a spreadsheet software product, or when their needs require a further analysis of requirements and a project to modify and/or develop system modules.

C
Process of Vendor Contact

End users are inclined to contact a vendor by themselves, as indicated in Exhibit IV-4, to investigate possible solutions for their needs.

EXHIBIT IV-4

Initial Contact with Vendors

Contact	Likelihood Reported by Respondents*
End User Contacts Vendor	3.5
End User and IS Contact Vendor	2.7
Routine Vendor Sales Call Uncovers Opportunity	2.5
IS Staff Contacts Vendor	2.3
Top Management Contact with Vendor	2.3

Likelihood Reported by Respondents*

*Where 5 = High, 1 = Low
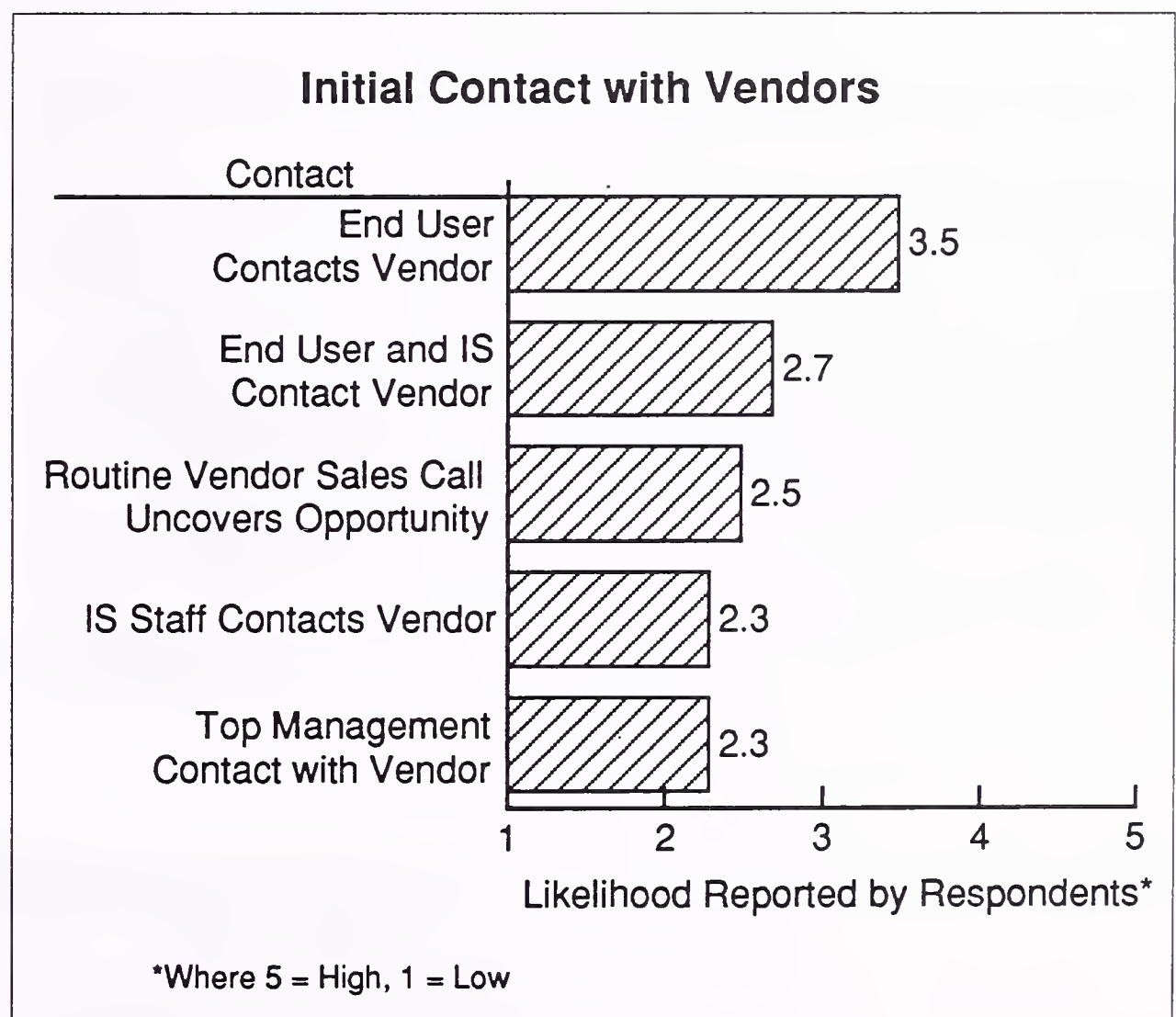
- Several end users mentioned that these contacts might quickly reveal whether the vendor products or services might meet their needs without spending time going through IS procedures.

- Other users said that they were conducting their own downsizing projects. IS personnel and top management participate in some of these initial contacts with vendors, as Exhibit IV-4 illustrates.

The types of vendors being contacted are reviewed in Exhibit IV-5. Software product and SI vendors can be of high interest to end users because they have become associated with solution-oriented approaches for downsizing.

Types of Vendors Contacted

Type of Vendor

Type of Vendor	Relative Interest
Software	3.7
SI	3.5
Professional Services	3.1
Turnkey	2.8
SO	2.3
Hardware	2.1

Relative Interest in Contacting Vendor*

*Where 5 = High, 1 = Low
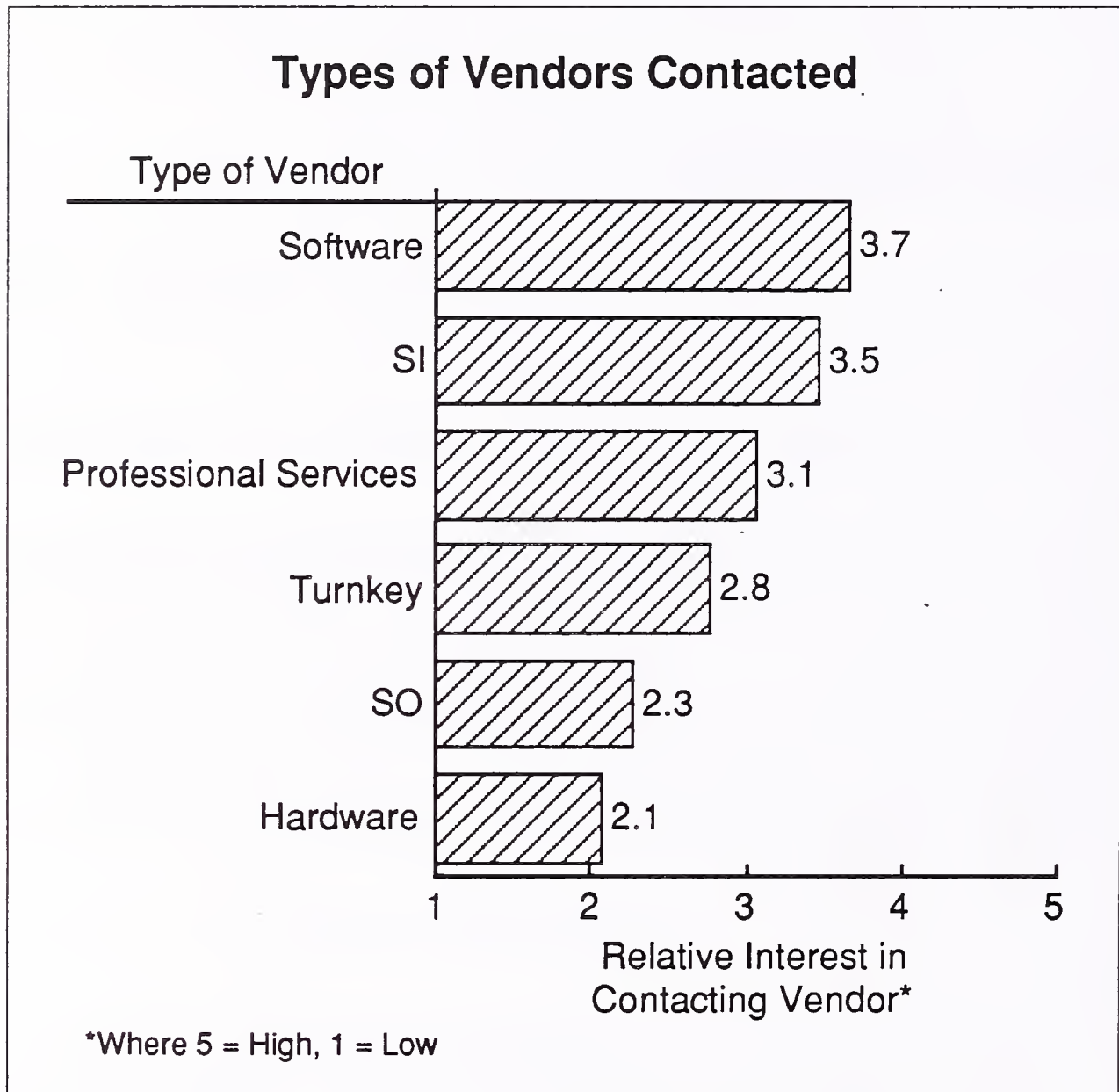
- These vendors may have advertised or made a presentation of software products used in downsizing, or of their abilities or training in relation to client/server applications and downsizing.

- Other types of vendors are also contacted to discuss downsizing, including hardware vendors. These vendors may have had experience with downsizing or with other IT-related projects at the user's company.

As Exhibit IV-6 illustrates, most of the items discussed with vendors focus on products and services that can achieve downsizing solutions rather than on consulting and planning for downsizing.

EXHIBIT IV-6

Products and Services for Downsizing Discussed with Vendors

Product/Service

Software Products	4.1
Ability to Customize, Downsize, or Aid with Software Products	3.8
Network Planning/ Products	3.6
Consulting/Planning	3.3
New Workstation Capabilities	3.1

Average Rating of Importance*

*Where 5 = High, 1 = Low
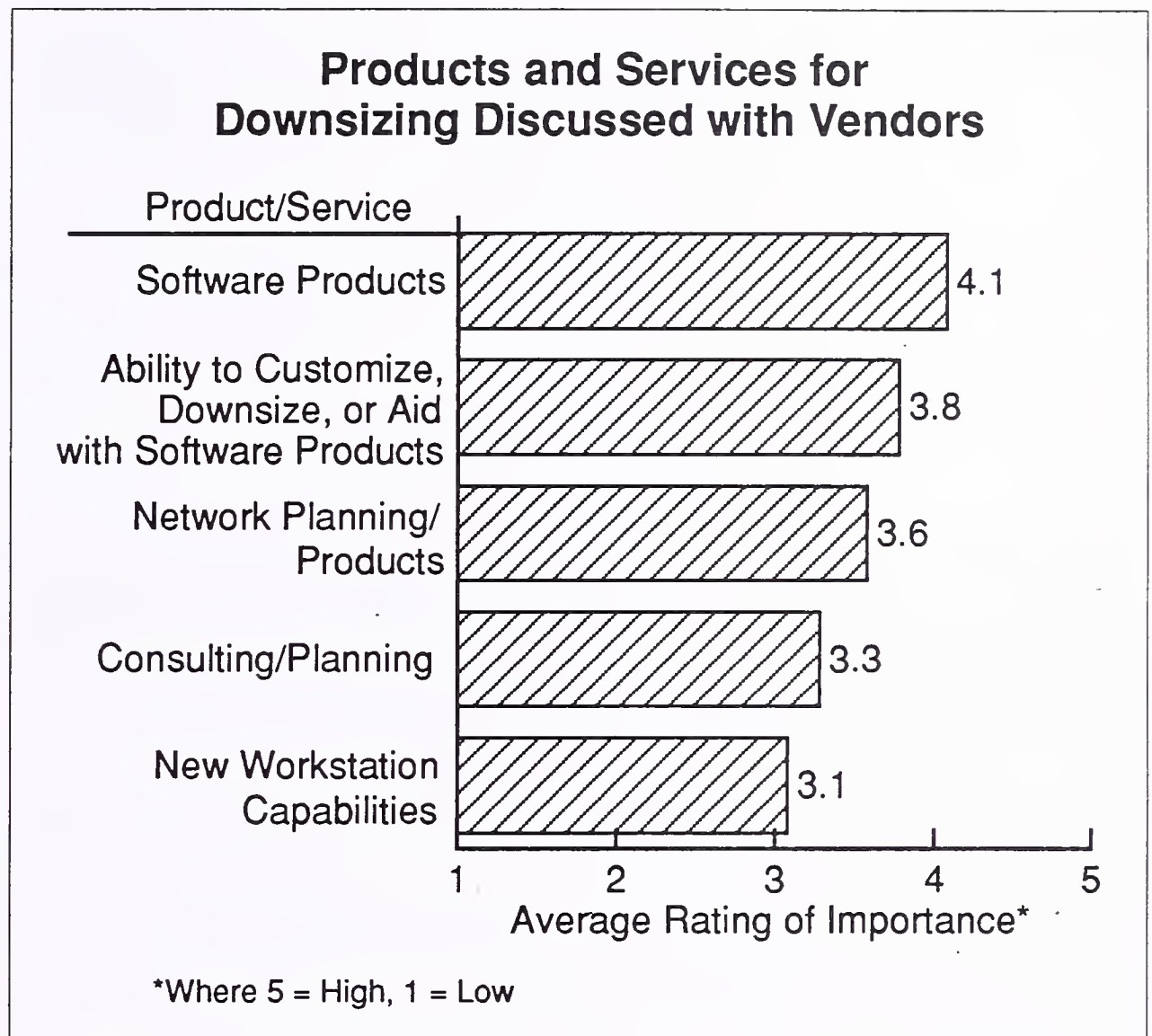
- This does not imply that end users are not planning and formulating business objectives. They tend to be interested in discovering if there are possible solutions before investing more of their time.

- Some vendors, particularly SI firms, are developing approaches for discussing possible solutions. They are also steering end users toward consulting aid and education that can help them plan more fully for downsizing when that becomes necessary.

D

Factors that Inhibit Downsizing Projects

Even when end users are interested in downsizing, there can be factors that inhibit its use, as illustrated in Exhibit IV-7.

EXHIBIT IV-7

Inhibitors to Use of Vendor Aid for Downsizing

Factor

Budgets Unavailable for Use of Vendors — 3.8

Inadequacy and Unavailability of IS Staff — 3.5

Current Changes in Organization, Restructuring — 3.2

IS Projects Already Under Way in Area Interested in Downsizing — 2.8

Average Importance to Respondents*

*Where 5 = High, 1 = Low
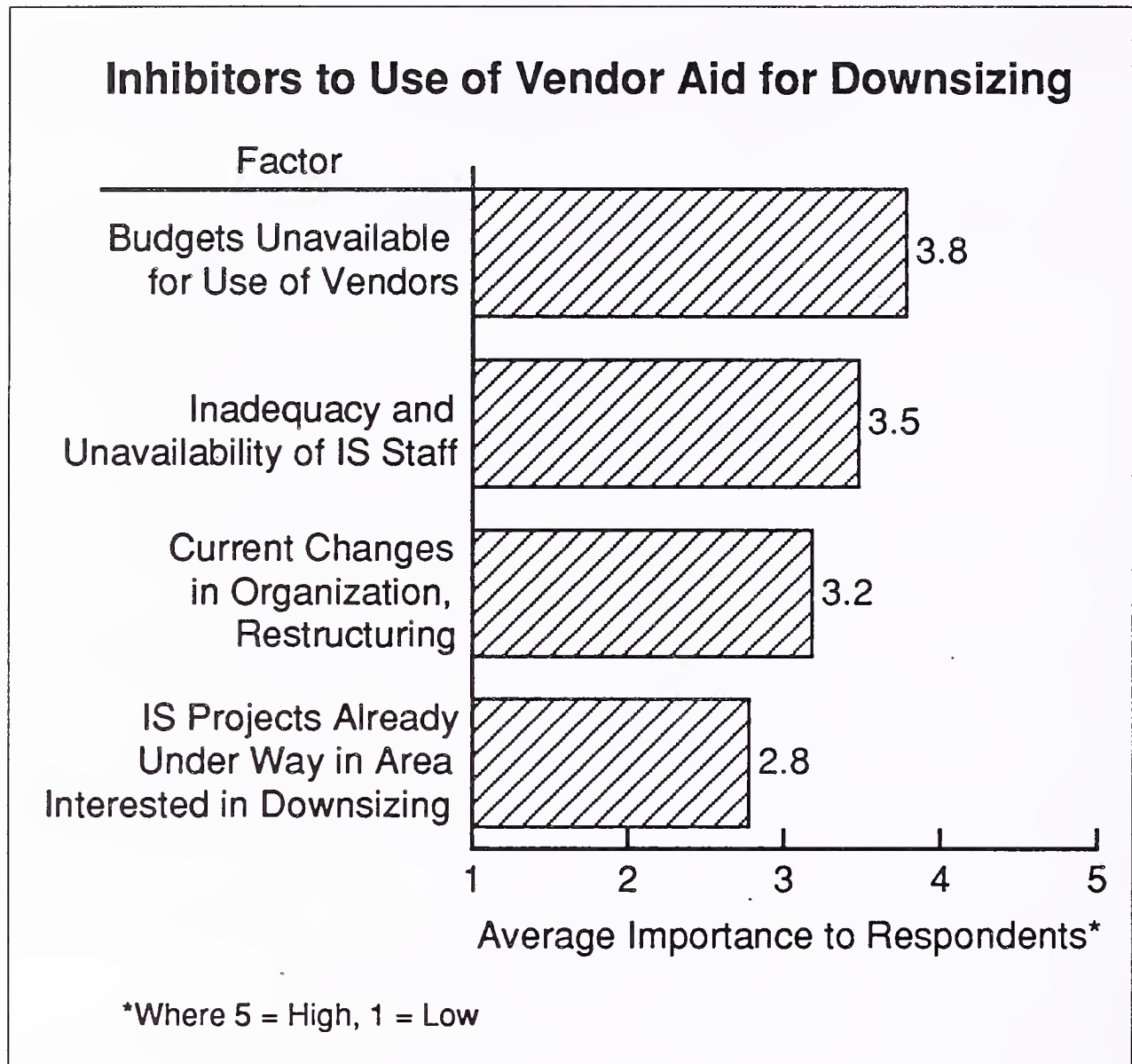
- There can be current projects or activities that must be completed before it is feasible to consider downsizing. One user reported that several data bases were being integrated, and this had to be completed before his department could download data for local processing.

- The availability of technical assistance or budgets can also cause inhibiting factors, and plans for corporate changes can delay or sidetrack downsizing.

Vendor Analysis

V-1
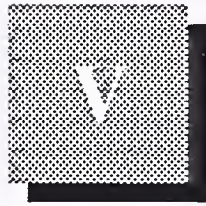
A

Vendor Activities in Support of Downsizing

Downsizing activities of a selected group of vendors are listed in Exhibit V-1.

EXHIBIT V-1

Selected Downsizing Activities

Vendor	Activity
Andersen Consulting	Consulting and training program for firms interested in client/server use
EDS	Outsourcing development and support of downsizing applications systems
CSC	Alliance with Borland to implement workstation-based systems
American Software	Downsized version of wholesale distribution software products
Systematics	Downsized banking applications available on client/server technology
IBM	Client/server group organized to aid users
Oracle	Data base, tools, and other software products as well as consulting in support of downsizing

- The activities emphasize that a range of services and products are now being offered to support downsizing, including SI, software products, systems operations and all submodes of professional services (education and training, consulting and software development).

- This range of offerings by vendors in different delivery modes raises the question of whether downsizing may cause a change in the mix of services that have been sold to meet user systems needs.

Professional services vendors report that they encounter more competition for their offerings from vendors providing other modes of information services when downsizing is involved. The specific delivery modes, or activities encountered that could reduce professional services work on downsizing jobs, are listed in Exhibit V-2.

EXHIBIT V-2

Downsizing Competition Encountered by Professional Services Vendors

Competition

	Relative Amount of Competition*
Applications Software Products to Implement Downsizing	4.3
SI Projects	4.1
Turnkey Systems	3.2
SO Services including Desktop Services	2.8

Relative Amount of Competition*

*Where 5 = High, 1 = Low
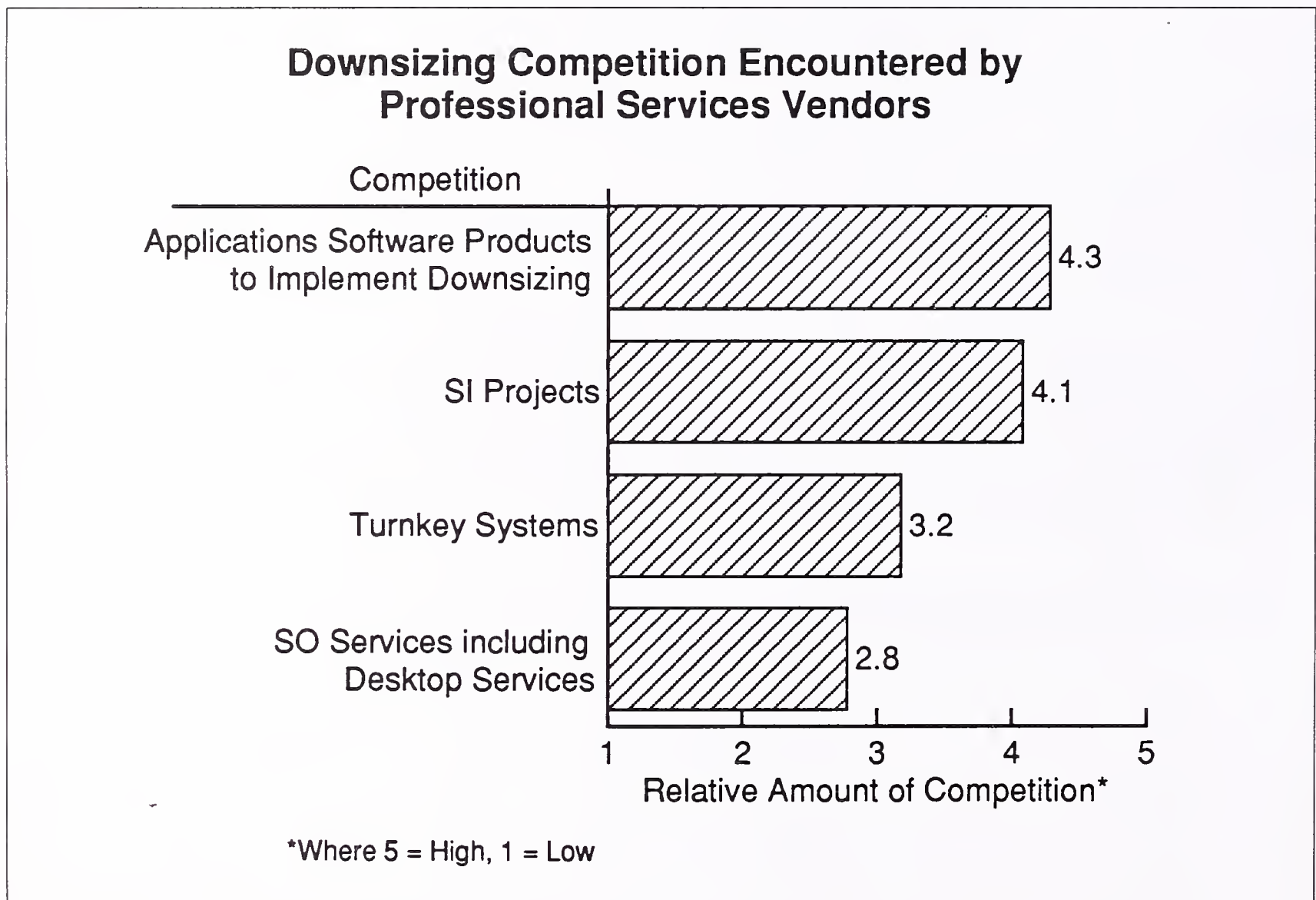
- The competition that appears to be encountered most often regarding downsizing is from software product vendors. End users would like to find software products that could meet their business needs with little or no modification.

- Also found in competitive situations involving downsizing by professional services vendors are turnkey systems or SI projects that could meet downsizing needs with limited software product modifications.

- Downsizing vendors also encountered outsourcing services such as desktop services or network management.

- Several professional services vendors noted that SI vendors might be the major source of future competition in regard to downsizing because they were developing consulting approaches, sets of skills and training programs that could address user needs.

The sequence of events that several vendors felt could happen in downsizing would start with an effort by end users to satisfy their needs for a downsized system with software products. The products they reported with which end users had satisfied their needs included a data base and reporting product, Paradox; a 4GL that would work with data base software products, Clipper; a set of Microsoft products, including Powerpoint and Excel (a spreadsheet); and a downsized accounting system of Macola. These vendors felt that end users would tend to seek aid from professional services and SI vendors when software products would not enable a solution to be achieved.

- Several professional services firms noted that they recently added personnel with knowledge of the software products employed in downsizing. A number of contract services vendors now have personnel available with skills in products used in downsizing.

- SI firms are also utilized to assist with software products, particularly when more aid is needed due to the complexity of needs, requirements for networks or questions of data management or distribution.

- Professional services firms are also considered for assignments involving more complex needs, but they are not always associated with achieving solutions that involve modification of software and integration of components in a relatively short time to the extent that SI firms are. End users are generally not interested in the full development of custom application systems for downsizing for which many professional services firms are known.

- Turnkey firms are also considered as possible solutions, but many of the software products that they utilize are not considered the most effective for downsizing.

B

Reduction in Professional Services Work

The analysis presented in the preceding section suggests that professional services firms are not considered as often for complete development assignments when downsizing is involved. The net impact of downsizing might be to reduce the professional services work that is available from user sites.

The outlook of vendors that has just been reviewed can be compared with information about the utilization of vendors by end users involved with downsizing, as shown in Exhibit V-3.

EXHIBIT V-3

Use of Professional Services with Downsizing

Planned Use

Used Software Products with Little or No Vendor Aid	29
Used Software, Professional Services and SI Firms to Aid with or Modify SW Products	24
Used SI Services to Integrate and Modify Components, Aid with Network Implementation and Achieve a Solution	35
Used Professional Services to Develop Downsized Systems	12

0   20   40   60   80   100

Percentage of End Users

Multiple answers possible

- Twenty-nine percent of end users had utilized vendor software products with little or no aid in selected situations. The primary reason that they gave for this was a desire to implement downsized application systems rapidly. Some of these end users had used vendor aid in other circumstances.

- End users also reported that software products and professional services vendors generally provided aid with software use when it was needed, but that SI vendors were also employed. They thought SI vendors were more often used to modify and integrate software products.

- These respondents noted that SI firms tended to obtain the larger contracts involved with modifying software products because SI firms had industry and functional knowledge and the reputation for timely solutions. They also possess technical knowledge and all of the important factors necessary to respond to complex user needs.

Several professional services vendors were in agreement with the information presented in Exhibit V-3. They felt that downsizing would lead to a redistribution of professional services revenues with SI vendors, and cause them to gain more than other vendors.

- There are professional services vendors, however, who feel that downsizing represents an opportunity for them becasue they have identified the means of responding to it. These respondents reported that they can now offer SI activities to meet downsizing goals or supply contract personnel with knowledge of software products used in downsizing.

- Several of the vendors who took the initiative to respond to downsizing feel that professional services vendors who do not respond to the changes brought about by downsizing could lose market share.

C

Responses of Professional Services Vendors

Exhibit V-4 illustrates the impact that downsizing has on professional services. Note that is is significant enough to encourage many vendors to consider changes in their business.

- Vendors who offer both professional services and SI, such as Andersen Consulting, EDS and CSC, were possibly faster to respond due to prospects for SI assignments who have become interested in downsizing. These vendors promote the use of downsizing as well as responding to market needs.

- Some of the vendors who offer software products and professional services work, such as ASK and American Software, have acquired or developed software products that support downsizing.

EXHIBIT V-4

Response to Downsizing by Professional Services Vendors

Vendor Group

Vendor Group	Percentage
Vendors Who Offer SI and Professional Services	77
Vendors Who Offer Software Products and Professional Services	57
Vendors Who Offer Chiefly Professional Services	45

Percentage Who Have a
Downsizing Initiative
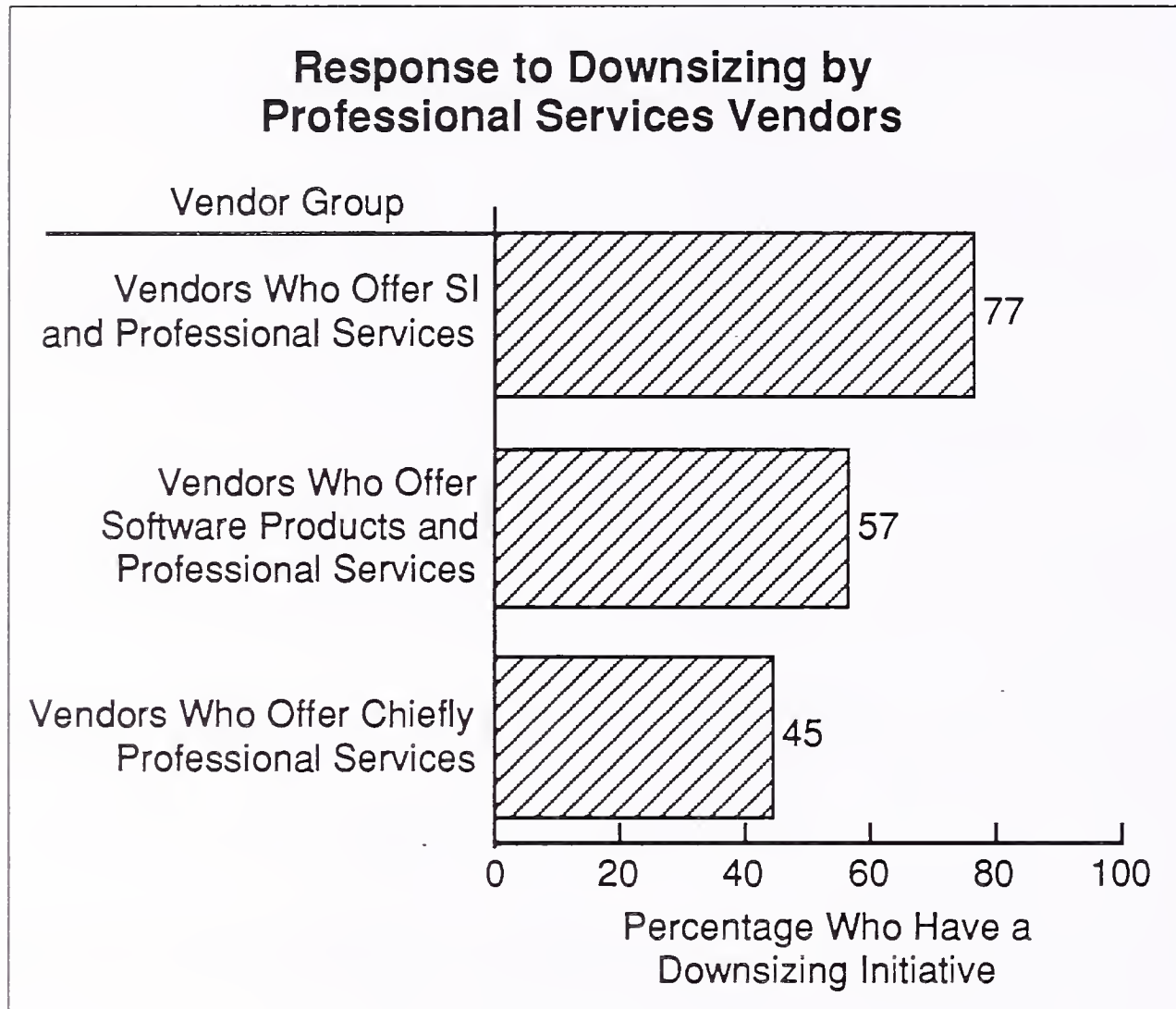
- Many vendors who offer chiefly professional services have also initiated downsizing initiatives, as shown in Exhibit V-5, but a sizable percentage have not. Some of these vendors take the stance that they already have the capabilities that are needed.

The most frequent changes reported in professional services have been to add to or strengthen the skill sets of contract personnel or project teams so that they can address downsizing needs of prospects or support and customize software products used in downsizing, as CGA, RCG and Rohn Rogers have done.

EXHIBIT V-5

Type of Downsizing Initiative Reported by Professional Services Vendors

Type of Initiative

Type of Initiative	Percentage of Vendors
Changed Skill Sets of Personnel to Support Downsizing	71
Developed Ability to Support/ Customize Software Products	35
Developed Ability to Offer SI or SO Services	29
Formed Alliances to Obtain Skills and/or Leads	24
Developed Ability to Manage/ Maintain Applications in Certain Functional Areas	18

0   20   40   60   80   100

Percentage of Vendors

Multiple answers possible

- Some vendors, such as HP and Learning Group, have also strengthened their ability to offer consulting or education and training in support of downsizing.

- Several vendors have introduced application management, transition management or maintenance capabilities that could support downsizing, as RM Associates and Comtex have done.

- A number of professional services vendors, such as CTG and CGA, have introduced or expanded services in other delivery modes such as SI or SO to support downsizing.

A sizable percentage of vendors plan no change or are uncertain what to do. One of these vendors reported that the changes it is pursuing are directed more toward changing its services to support workstation-related needs rather than downsizing.
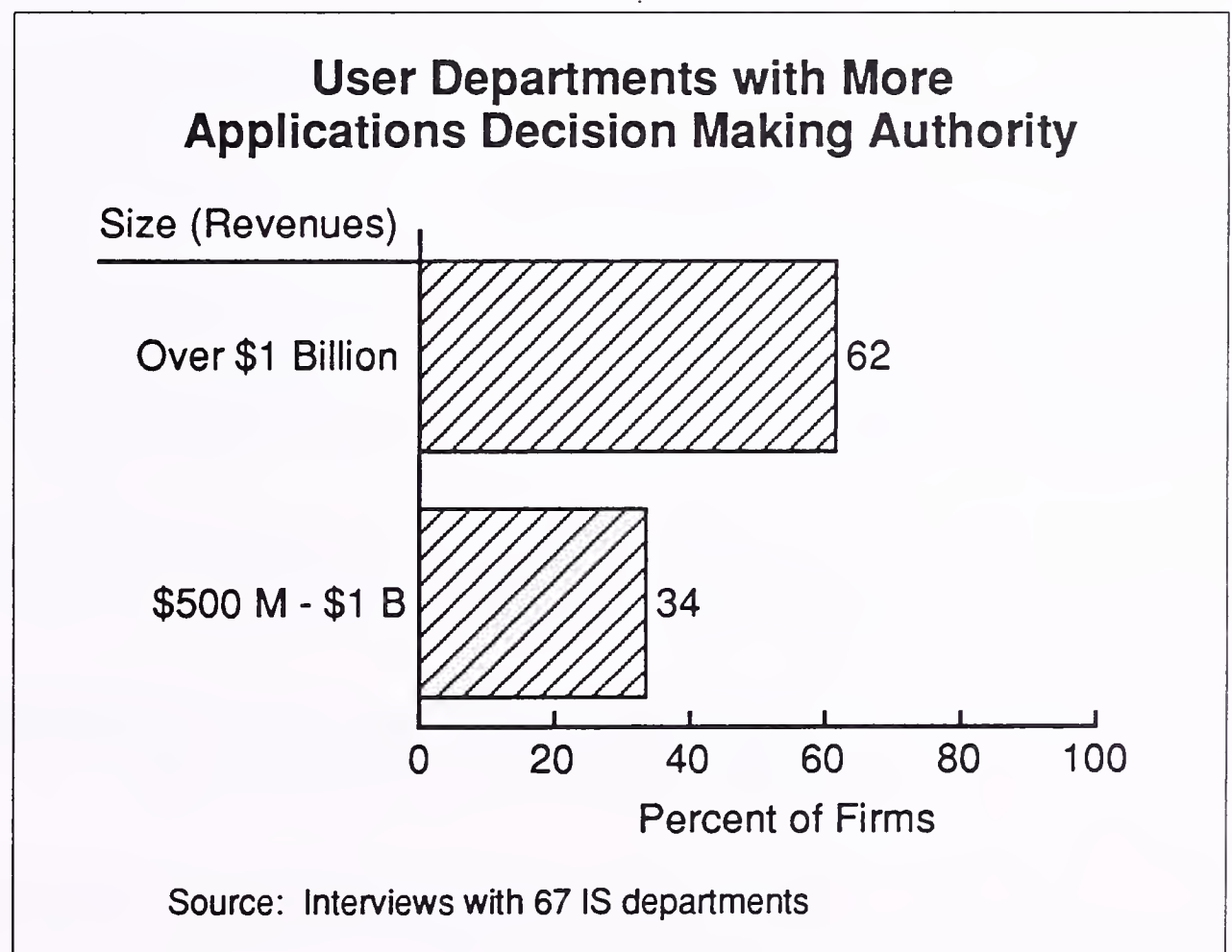
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VI
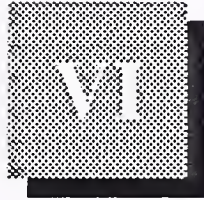
Evaluation of the Impact of Downsizing

A

Impact on End Users and IS

Downsizing is having an impact on end users' work, as described in Chapters III and IV, and on the role of end users in the use of IT. The increasing importance that users have in regard to decisions on obtaining information systems and services illustrates the impact of downsizing on end-user roles, as shown in Exhibit VI-1.

EXHIBIT VI-1

User Departments with More Applications Decision Making Authority

Size (Revenues)

Over $1 Billion — 62

$500 M - $1 B — 34

0   20   40   60   80   100

Percent of Firms

Source: Interviews with 67 IS departments

- Some respondents point out that there was a trend toward increased decision making powers of end users during the 1980s and that the increased role of users mentioned currently is just part of that trend.

- Most respondents agree, however, that downsizing has accelerated the trend by helping to move application systems to equipment in user areas.

The report encountered another confirmation of the impact of downsizing on user roles when several CIOs reported that they were less likely to take actions that end users didn't support because that might lead to consideration of downsized systems.

IS plans, activities and budgets have been impacted in a number of ways by downsizing, as indicated in Exhibit VI-2.

EXHIBIT VI-2

Impact of Downsizing on Central IS

Factor	Impact of Downsizing
Central IS budget	Reductions of 20% to 40% reported
Central staff reduction	Reductions of 15% to 70% reported
Support to users	Increases reported to support downsized environment
Technological skills	May need increased skills to support end users or may have to transfer certain skills to users
Relation with end users	Closer relation required to stay current with user planning

- Central IS budgets and staff can suffer reductions. Some of the staff reductions may result from a transfer of skilled people to the end-user installation, as noted.

- When end users obtain approval to move IS personnel to their areas to support downsizing, it can weaken the skills that the IS organization planned on using to support its future goals.

- Despite budget reductions and transfers of personnel, end users may still call upon central IS for aid with downsized applications.

When end users move downsized applications from central IS areas to their own equipment, the users and top management often expect savings to occur in central IS budgets even if these savings are not the main justification for downsizing. In some situations; however, end users may have included those savings in their justifications for downsizing.

One IS department that was interviewed had convinced top management that end users should only be able to count 25% of the savings in central IS usage as part of the justification for downsizing expenditures. This was done in order to ensure that support for the IS center would not decrease rapidly.

- This also protected near-term plans of IS from being deferred or re-evaluated.

- However, this action had alienated some end-user managers and reduced the amount of planning that was formerly conducted with IS management. There is a large demand in many user areas to take over a part of the IT processing being done for users.

IS systems plans can be adjusted when a significant amount of downsizing takes place. For instance, it might be necessary to call off equipment upgrading or consider consolidation of work and the release of mainframes if mainframe workloads decrease sufficiently.

B

Central IS Issues

Due to the possible impact on overall plans, IS may find it difficult to provide unbiased assistance on user plans for downsizing, as indicated in Exhibit VI-3.

- The central IS group will find that its budget and/or role will be reduced in many organizations where downsizing takes place.

- Some of the centers established by end users will be significantly large in comparison to centers run by IS.

EXHIBIT VI-3

Critical Downsizing Issues
Identified by Central IS

- Growth of end-user centers

- Disinterested support of end users

- Training for end users

- Responsibility for downsizing problems

- Facilitating the transition of work to end-user control or work areas

- Adjusting plans and budgets to reflect downsizing changes

In addition, user plans may result in decreases in IS budgets or personnel as noted in section A of this chapter.

- Several IS respondents stated that recent user plans offered far fewer benefits than they could achieve through initiatives that IS had been thinking about, such as electronic commerce or imaging.

- IS respondents also noted that user plans would inhibit the ability of IS to obtain the funding or proceed with equipment upgrade steps that would help to achieve more corporate objectives.

The growth of downsizing has not been halted by these arguments since end users seek benefits that can improve the performance of the corporation. Consequently, IS must make an effort to work together with end users, as noted in the downsizing issues for IS listed in Exhibit VI-3.

- IS must try to share plans with end users in order to support work that should be done by users to benefit the corporation or to gain backing for work that should be done centrally.

- Knowledge of user ideas and plans will save time and make it less likely that central or end user planning that has to be reconsidered or redone will take place.

- IS must also maintain a closer relationship with end users to help them avoid the problems that can occur with downsizing and facilitate the transition from a centrally run application system to a downsized system.

Close relations with end users should be encouraged by IS and top management·even if downsizing will have a serious impact on IS because it can save the corporation money and help generate improved end-user productivity. This is one of the critical issues for IS in relation to downsizing.

It is anticipated that downsizing will result in decreases in IS budgets and personnel, as was shown in Exhibit VI-2.

- However, the total expenditures for information systems and services and the dependence on them may increase.

- Consequently, there may continue to be a need for a central IS group with knowledge of IT technology and vendor contacts to work on standards, develop projections of technological change and supply training or consulting to end users when desired.

C
Impact on Professional Services Vendors

As a result of downsizing, the use and·revenues of some professional services vendors will be reduced, as discussed in Chapter V.

- In order to address the situation, a number of vendors have developed skills with software products used in downsizing and client/server technology.

- Other vendors have found that they had some of the needed capabilities and are strengthening them.

- There are vendors, however, who are concerned about possible losses of revenues because they do not have the skill sets in demand and are initiating steps to meet the needs of downsizing.

- There are also vendors who are unsure about the changes taking place, or feel that they need more time to investigate the effect that downsizing may have on them.
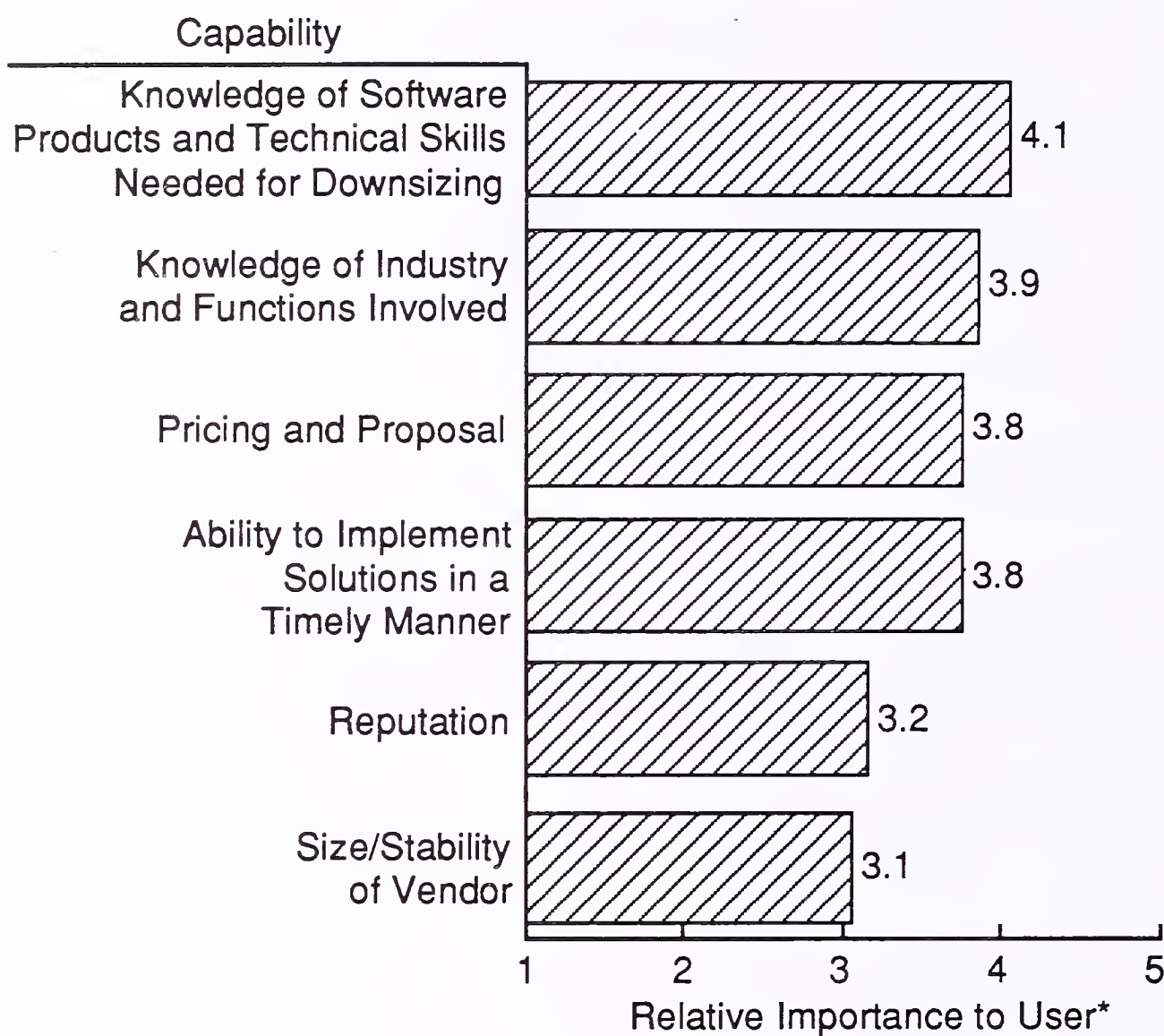
None of these responses may fully address what professional services vendors must do to meet the impact of downsizing.

- When end users need aid with software products and other skills needed to support downsizing, these skills dominate the interaction with vendors, but other factors become important when solutions can not be easily generated.

- The characteristics that become more important to end users when problems appear more complex will tend to emphasize factors other than the technical skills shown in Exhibit VI-4.

EXHIBIT VI-4

Vendor Capabilities of Importance in Downsizing

Capability

Capability	Relative Importance to User*
Knowledge of Software Products and Technical Skills Needed for Downsizing	4.1
Knowledge of Industry and Functions Involved	3.9
Pricing and Proposal	3.8
Ability to Implement Solutions in a Timely Manner	3.8
Reputation	3.2
Size/Stability of Vendor	3.1

Relative Importance to User*

*Where 5 = High, 1 = Low

Industry and functional knowledge as well as the ability to implement solutions in a timely manner will come to the fore in situations such as these. Vendors such as Andersen Consulting, EDS, CSC and SHL Systemhouse can profit from this situation as well as IBM, DEC and other companies involved with SI.

- These companies will have the technical skills to meet the needs of downsizing, but they can also address the industry and functional knowledge that can be required.

• As SI firms, they have the reputation for implementing solutions in a timely manner and integrating the components needed for a solution.

Professional services firms may not fare as well in appealing to prospects for downsizing unless they promote SI capabilities. They will certainly not appeal to many prospects if they emphasize the development of large custom applications software products, or if they do not have industry and functional knowledge.

Some vendors feel that professional services vendors, particularly smaller ones, will have to concentrate on supplying contract services to support downsizing rather than to compete for more complex jobs with an SI approach because the large SI firms will obviously have an advantage with these jobs.

• However, a number of smaller firms, including Comtex and JYACC, have gained the necessary industry knowledge and technical skills to achieve this type of work.

• Very small professional services firms, such as MicroDatanet in New Jersey, have also obtained jobs with this mix of capabilities.

Some professional services vendors are also reluctant to consider new types of services to support downsizing, although many small—as well as large—vendors have introduced application and transition management and desktop services to support downsizing environments.

Professional services vendors have many new opportunities resulting from downsizing; although some of them require stepping outside the traditional business of some vendors.

D

Impact on Use of Professional Services

The analysis in the preceding section indicates that professional services firms are not considered as often for full development assignments of custom applications systems when downsizing is involved. This is one of the impacts of downsizing identified by professional services vendors and indicated in Exhibit VI-5.

Changes in the Use of Professional Services Identified by Vendors
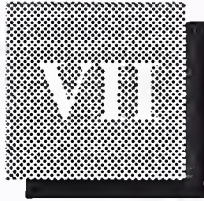
Change

- Less contract service demand for mainframe software products

- Skills needed to support new workstation software products and client/server use

- More use of software products versus software development

- Support of new tools and approaches to software development

- Less demand for full development of custom application systems

- More demand for professional services in support of SI projects

- More need for knowledge of industry functions

- Need for new types of support

- The advent of downsizing has led to less contract services demand to support mainframe software products as well as less custom development for mainframe application systems, according to vendor respondents. Many new user needs are now implemented with downsized applications rather than mainframe projects.

- Downsizing has also caused PS vendors to support new workstation software products and client/server technology as well as new tools and approaches to software development.

- There is now more need to meet a set of focused end-user needs with professional services than there previously was, and more need to deliver work in a short time frame.

- Professional services that were employed in development assignments to achieve a solution will be employed more often as part of an SI assignment because there is an increased demand to modify software products and/or integrate software and other components of a system to achieve solutions to user needs in a timely manner.

- There is also need of more industry and functional knowledge to meet the need described above or other more complex user needs.

Downsizing has created a need for more types of support that can be supplied with professional services capabilities. These include: special training, consulting to plan activities or equipment or operational services to support downsizing, and transition and application management. Needs for other information systems submodes, such as desktop services and network management, have also increased as a result of downsizing.

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VII

Conclusions and Recommendations

A
Conclusions

The conclusions of this study emphasize the fact that downsizing is a major agent of change in the use of professional services, as illustrated in Exhibit VII-1.

EXHIBIT VII-1

Conclusions

- Use of downsizing is rising rapidly
- Business benefits are the prime motivator
- New technology is a strong stimulus
- Client/server technology is highly utilized
- End users are more active as buyers
- Successes and problems are being encountered
- Downsizing is changing the use of IT
- Professional services use can decrease
- There are new opportunities for vendors
- Price is not always the major vendor selection criterion
- Professional services vendors must plan responses
- Downsizing will lead to growth of local IS facilities

- Interest in downsizing is explosive because it is responding to major business needs and problems.

- The improvements in quality and service that are needed in today's competitive business environment require that more IS capability be placed in the hands of end users. The restructuring that is taking place in business also requires that IS capabilities be brought to the user functions.

- If current client/server technology and workstations were not present, business would be attempting to downsize with older technology. Minis that utilize newer technology to improve performance are also being used for downsizing. The presence of new technology is an accelerator for downsizing.

Business benefits and restructuring are the motivating forces behind downsizing; although technology and potential savings in central IS costs are also important.

- Top managers in many organizations are hopeful that downsizing will result in reductions in central IS costs.

- Reductions have not proceeded to the extent desired, even though they have been achieved. The hope that they can be achieved has helped to support downsizing in some situations.

What new technology has done, according to one end user, is to make it obvious that some jobs can be moved to user areas and easily implemented.

- This user had implemented a spreadsheet to duplicate the reports and analyses produced by a mainframe for other offices in his company, as well as for customers. His system also sent the reports out electronically.

- The user had the data downloaded to a server in the user area where it was accessed and manipulated by two workstations.

- As a result of successfully replacing this mainframe work, the user developed plans to take over the entire application system. When questions about data integrity were raised, the user pointed out that the benefits that could be achieved by better customer service would offset the work that might have to be done to audit and control data.

This example illustrates how downsizing can not only spread but stimulate the movement of more important application systems to user areas.

Although client/server technology is the most utilized platform for downsizing, end-user work is being downsized to minis as well. This has happened in some circumstances where more critical applications were involved.

- Apart from downsizing, new application systems are also being implemented with software products that run on minis or workstations.

- The implementation of systems on minis or workstations that formerly ran on mainframes may not always be viewed as downsizing by end users or IS. The application may be totally rebuilt and all data management may be moved to the new platform.

INPUT would classify the work as downsizing if the application systems encompass functions which formerly ran on larger computing platforms.

Where downsizing takes place, the role of the end user expands in relation to the use of information technology.

- End users have more responsibility for improving quality of work or other business functions through the use of technology.

- End users are taking a stronger role in demanding IS capabilities and initiating downsizing efforts to support their business needs, as noted in Exhibit VII-1.

This exhibit also indicates that end users encounter successes in downsizing as well as problems. Some end users have acted alone, at least initially, in downsizing activities, and others sought aid from central IS groups and/or vendors.

- There are needs for the products and skills of vendors, but some professional services firms neglect this opportunity.

- A group of SI vendors has responded rapidly to the need, however, providing consulting, training, technical skills, products and aid in planning and implementation.

Pricing and technical skills are most important as criteria for selecting and comparing vendors when initial or less complex assistance is sought to aid in the use or simple change (message change) of software products. When more complex problems exist that may require modification and/or integration of components, knowledge of industry functions becomes more important.

Professional services firms that do not respond to the large-scale changes that downsizing provides are in danger of losing market share, according to data from vendor and user respondents.

- The use of professional services to develop large custom software applications as well as to supply contract services for mainframe systems will decrease.

- SI vendors may be used instead of professional services vendors in situations where software products must be modified and integrated.

There are new opportunities for professional services vendors, as well as the strong possibility of further growth in end user work. Professional service vendors must plan an approach to obtain this work.

The opportunities that downsizing has made available to vendors include supplying traditional professional services submodes—education, training, application management and software development—as well as SI and SO capabilities, as shown in Exhibit VII-2.

EXHIBIT VII-2

Opportunities Enhanced by Downsizing

- Consulting for planning downsizing

- Special training classes

- Selecting and aiding with software products

- Aiding with network and client/server technology

- Applications management

- Desktop services

- Transition management

- SI services

- Defining equipment and software support

- The consulting and development work can include aid in planning, as well as in selecting and implementing networks, equipment complements and software products.

- Aid is also needed in planning, and possibly supplying support programs. In one case, a professional services vendor was engaged to supply people to support mainframe application systems while internal IS aided users to downsize those application systems. This type of transition management work can be extended into outsourcing contracts which involve providing these services over a period of more than one year.

- Some professional services firms have also taken on SI roles in the implementation of network capabilities and client/server technology and modification of software products to achieve user needs. Others have developed the ability to supply contract personnel with the knowledge of software products that are frequently used in downsizing.

B

Recommendations

In order to be prepared for downsizing opportunities, professional services vendors must analyze what is taking place in their market, and review their services to ensure that they can support the types of software products and other skills that are being used, as pointed out in Exhibit VII-3.

EXHIBIT VII-3

Recommendations for Professional Services Vendors

- The impact of downsizing must be analyzed

- Skills to support downsizng must be gained

- User problems and need for aid should be reviewed

- User and IS roles must be assessed in each account

- Proactive contact is needed to uncover opportunities

- Industry and functional knowledge will be necessary in larger contracts

- Vendor should consider new services and products

- Professional services vendors will have to divert attention from their work with larger platforms

- This can include applications software products, like the human resources system of PeopleSoft, and spreadsheets, operating systems, data base products, languages, GUIs, 4GLs, data access and other systems software products.

- It also includes skills in implementing or making use of networks and supporting client/server technology.

- In addition, it can include skills in addressing data management or data distribution problems.

These products and skills can enable professional services firms to obtain contract services work and help with problem solving, but vendors should gain industry and functional knowledge as well as the ability to modify software products and integrate them with other IT components. This will achieve a solution in order to compete with SI firms to get larger downsizing jobs.

The need for user aid to overcome problems should be anticipated, and vendors should take proactive steps with end users and IS groups such as making periodic presentations or visits to uncover opportunities. Several major vendors commented that they are surprised about the number of problems that have been brought to their attention as a result of randomly planned contact.

The roles of users and IS should be assessed so that vendors can approach either or both depending on the organization.

- Although power is moving into user hands, IS may still have the power or a strong voice in some circumstances.

- Users may be acting alone in other cases. Vendors must be prepared to take a proactive role in providing aid to either users or IS or both parties in regard to downsizing.

- Vendors must also be prepared to meet a number of the technical needs for downsizing when they take a proactive role. Users report that they will quickly look for other alternatives if a vendor (or IS) does not have the knowledge to answer questions and keep activity going.

Some vendors have decided that they will limit their responses in regard to downsizing by only meeting the needs for technical skills and experience with contract personnel.

- This has been successful for some professional services vendors that have responded to this study, but other firms feel that vendors may have to be prepared to step into small development assignments where the user or IS cannot perform or manage the activity required.

- This could also lead to the need to perform continuing application support or management for the system developed.

- The assignments noted above would require some industry and application knowledge as well as project management capabilities and planning experience.

It may be difficult to avoid being drawn further into the use of downsizing because it is having such an impact on end-user departments and is being introduced on such a wide basis.

Exhibit VII-3 also points out that aid or consulting regarding downsizing can be vital in some user situations; for instance, where order entry or customer services functions are being downsized.

- Data security and validity might have to be addressed.

- Needs might have to be analyzed and satisfied in stages.

In order to meet the opportunities involved with downsizing, vendors may have to divert attention from work with larger platforms, although familiarity with mainframe applications could be useful in planning and segmenting work for user applications.

Recommendations for central IS groups, and users, listed in Exhibit VII-4, emphasize that an effort should be made to conduct planning. IS should try to play a consultative or partnering role to help users plan even if IS is in conflict with some of the user ideas.

EXHIBIT VII-4

Recommendations for End Users and IS

- Central IS should partner with users

- Users should review downsizing plans with central IS or vendors

- Downsizing plans should emphasize business benefits

- The need for new skills should be anticipated

- Vendor capabilities should be taken advantage of

- Central IS should promote and participate in business re-engineering plans

- End users should review their business plans with IS or vendor planners before planning implementation steps. Achieving business plans is more important than the hardware and software products in which end users may have developed interests.

- Since technical skills will be needed to implement downsized systems, central IS and end users should investigate vendor products and capabilities and consider seminars and courses that could inform them more completely about current developments.

Central IS, end users and vendors should all try to anticipate what combination of software products and development activities may result from downsizing planning.

- A large corporation reported that equipment and UNIX software products were selected for a user site before vendor or IS planning groups had become aware of the fact that no resource had been identified to supply the code that was necessary to provide interfaces between the software products.

- An assumption was made that internal resources could be found. When they could not be identified, a rapid search was made for a vendor with the necessary skills.

A final point to keep in mind is that end users, central IS and vendors who play a large role with downsizing must all be concerned about the status of restructuring or business re-engineering plans. Downsizing choices should not wait on these plans in most cases, but they should be made with these plans in mind. Central IS or a vendor can play a helpful role in relating current downsizing activities to longer term plans.

A-1
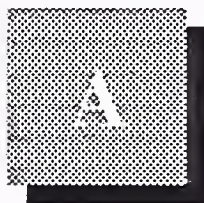
INPUT Downsizing Program

This program is based on INPUT's experience in analyzing trends in the information services industry for nearly two decades. It provides insights on the reasons for and against downsizing, emphasizes the benefits being achieved through downsizing, and reviews competitive offerings and actual installation experience.

There is a revolution in the use of information services in the 1990s. Users are taking advantage of the rapid changes in price/performance in storage, processing and telecommunications to reduce the costs and implementation time associated with achieving business goals. As a result, there are major impacts on both user and vendor organizations.

The program provides a series of reports on downsizing that analyzes the impacts, issues and questions on systems architecture, methodology, data quality and security that have come to the surface as a result of the downsizing revolution.
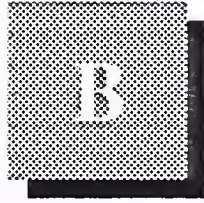
Downsizing User Questionnaire

1. Is your company engaged in downsizing any part of your information systems applications?

   Yes____ No____

   If no, thank the respondent and terminate call.

2. If your company is engaged in downsizing, how would you describe it?

   From mainframe to mini: _____

   From mainframe to workstation or PC: _____

   From mainframe to LAN client/server   _____

   From mini to PC/workstation   _____

   Other, please describe   _____

   _____

3. What do you think downsizing should involve? Please list the characteristics and rate them as very important = 5 down to unimportant = 1.

   _____

   _____

   _____

   _____

4. Did central IS or a vendor work with users to downsize?

   Vendor?____   User? ____

5.   If a vendor did, what type of vendor was it?

                              Type of Vendor

     Software   _____

     Professional Services   _____

     SI   _____

     Other (Please describe) _____

6.   Who was in charge of the downsizing project?

     Central IS   _____

     IS and End User   _____

     End User   _____

     Other (Please describe) _____

7.   Did a vendor or IS provide aid with networks? If yes, please describe.

     _____

     _____

     _____

8.   Did a vendor or IS provide aid in the selection and/or customization of applications software
     products? If yes, please describe.

     _____

     _____

     _____

9.   Did a vendor or IS provide aid with the selection of data bases, access or report tools, GUIs
     (graphical user interfaces), or operating systems? If yes, please describe what work they did.

     _____

     _____

     _____

10. Did a vendor or IS provide training or consulting aid?

_____

_____

_____

B-3

11. Would you use the vendor that was involved with any of these activities again?

Yes _____   No _____

Why?

_____

_____

12. What forces are driving the use of downsizing in your opinion? Please rate the importance of this force on a 5=high to 1=low basis.

_____

_____

_____

13. What benefits have you or will you obtain from downsizing? Please rate the following benefits on a 5=high to 1=low basis.

Benefits	Rating	Comment
Increase in quality	_____	_____
Increased customer service	_____	_____
Increased revenues	_____	_____
Cost savings	_____	_____
More effective work flow	_____	_____
Improved productivity	_____	_____
Other (Please describe below)	_____

14. What problems were encountered in downsizing? Please rate the problems on a 5=high to 1=low basis.

Problem	Rating	Comment
Costs exceeded estimate	_____	_____
Time exceeded estimate	_____	_____
Goals were not achieved	_____	_____
More aid was needed than anticipated	_____	_____
Other	_____	_____
Other	_____	_____

15. Please describe what steps should be taken by departments of organizations that are planning downsizing.

_____

_____

_____